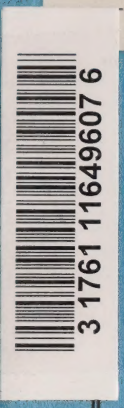


ANNUAL REPORTS

OF THE

Department of Highways

ONTARIO

1932

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO
Printed and Published by Herbert H. Ball, Printer to the King's Most Excellent Majesty
1934

ANNUAL REPORTS

OF THE

Department of Highways

ONTARIO

1932

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

SESSIONAL PAPER No. 48, 1933

ONTARIO

TORONTO
Printed and Published by Herbert H. Ball, Printer to the King's Most Excellent Majesty
1934

CONTENTS

To The Honourable Herbert Alexander Bruce,
M.D., R.A.M.C., F.R.C.S. (Eng.).
Lieutenant-Governor of the Province of Ontario.

May It Please Your Honour:

I herewith beg to present for your consideration the Report of the Department of Highways, relating to Highway Improvement in the Province of Ontario during the year 1932.

Respectfully submitted,

L. Macaulay,
Minister of Highways.

Department of Highways,
Toronto, March 5th, 1934.

To The Honourable Leopold Macaulay,
Minister of Highways, Ontario.

Sir:—We have the honour to submit herewith our Report on the Department of Highway's activities for the year 1932.

The report covers operations and the functions performed by the various departments, including King's Highways, Municipal Roads Branch, Accounting, Bridge Construction and the Motor Vehicles Branch.

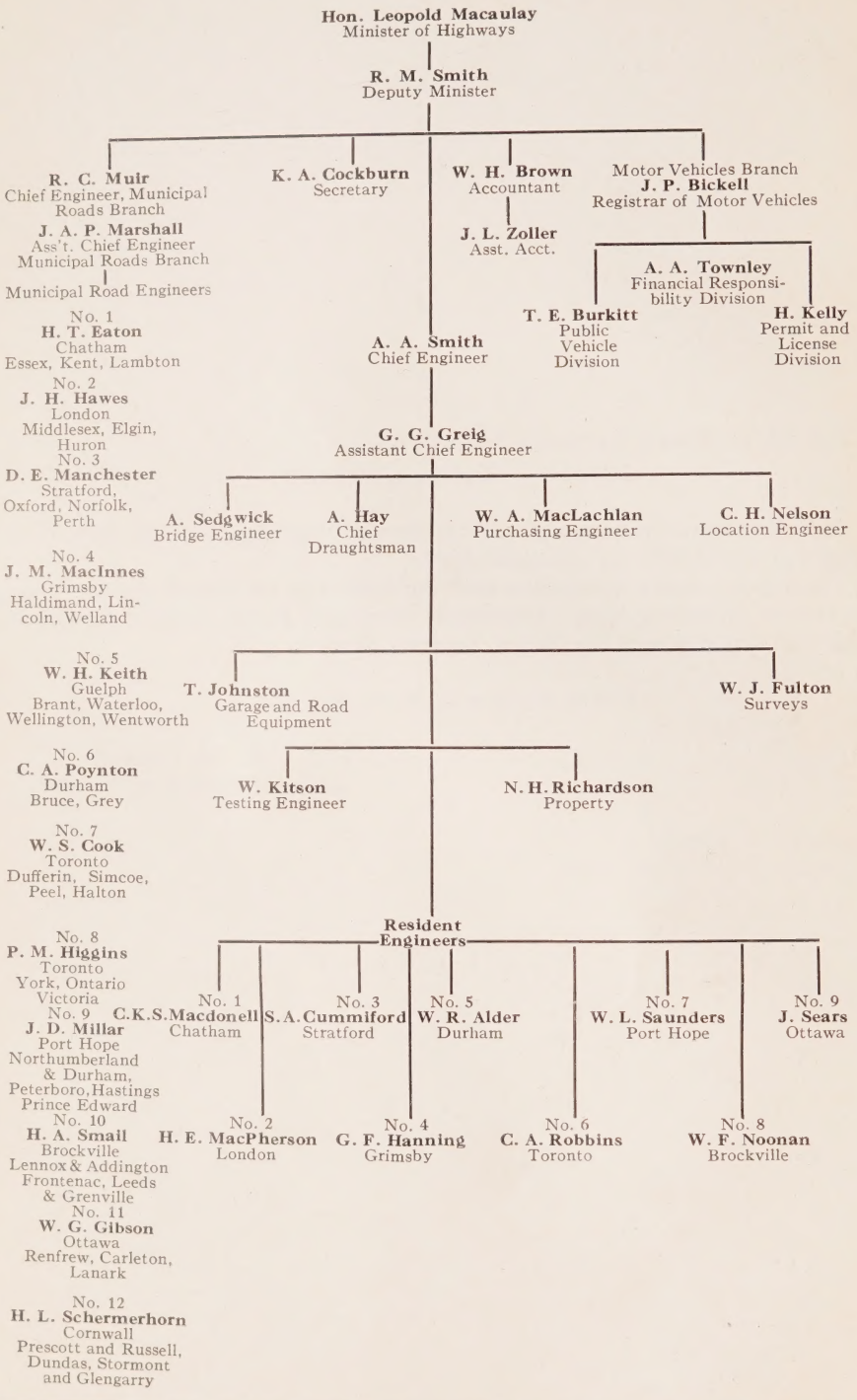
I have the honour to be, Sir,

R. M. Smith,
Deputy Minister of Highways.

Parliament Buildings,
Toronto, March 5th, 1934.

ORGANIZATION CHART

ONTARIO DEPARTMENT OF HIGHWAYS



ONTARIO AND ITS HIGHWAYS

By R. M. Smith, Deputy Minister

A report covering the activities of the Department of Highways for the year 1932 will indicate an effort on the part of those interested and entrusted with this work to curtail expenditures. During the year 1931 expenditures on all types of construction made by the counties, townships and province equalled $22,473,641, whereas in 1932 this expenditure had dropped to $13,407,962. With increased taxation came a demand for curtailment, and works that gave relief to unemployed, which justified themselves because of their necessity, only were considered.

With unemployed men to be occupied, considerable study was given to the developing of routes into outlying areas, the grading of broken country with rock and earth removal proving ideal conditions under which these men could work. Construction of the Actinolite-Maberly section of No. 7 Highway, a main artery on an east and west thoroughfare, is typical of the development considered. Many fine bridges were constructed and much mileage of highway surface laid. The importance of grade crossing elimination was ever before the Province, with the result that many dangerous hazards were removed.

With the lessening of our construction, engineers gave more time and attention to improved safety in highway development. Curve and grade elimination, particularly improvement in vision, were taken into consideration. With increased speed, conditions that formerly were considered suitable, safe and adequate, required further adjustments. In many sections where dangerous ditches cut into the roadside, provision was made to have them removed clear of the right-of-way, or at least back to the fence lines, the widened shoulder of the road adding much to the safety and convenience of the motorist.

While construction costs were cut and work curtailed, maintenance not only on the part of the Province, but the municipalities as well, was given special consideration, every effort being made to keep the road surface in a safe and satisfactory condition.

Highway construction and maintenance are naturally of paramount importance to the safety of the motoring public, but construction and maintenance are not the only items that count. Care in the erection of warning signs, directional and informative, is most important and particularly the maintenance of this service. A well kept and smart appearing roadside indicates a progressive country.

The function of our highways is to perform a service to the motorist, providing an easy riding smooth surface, allowing for continuous movement of transportation either winter or summer, which is safe at all times. Motors of all types traverse our roads, slow cars and fast, heavily laden and light; consequently, the grades must not be steep. The fills must be wide, the surfaces must be suitable, all making for the convenience of those who wish to use our highways.

Laws have been made to protect our road surfaces. Legislation assists and guarantees the safety of the motorist and rigid enforcement of certain of

the highway traffic laws is made necessary that the vast sums invested in highways may be protected.

The Province, through its Highway Department, assists in the development of all roads, regardless of their classification.

The following report covering the activities of the various branches of the Department for 1932, including King's Highways, county and township roads, as well as the Motor Vehicles Branch, is submitted in detail for your instruction and information.

REPORT OF HIGHWAYS ACCOUNTANT

By W. H. Brown

To R. M. Smith,
Deputy Minister of Highways:

The following is the Report of the activities of this Branch in connection with the years 1931-1932:

Expenditure

	1931–32
King's Highways	$4,329,196 01
Grants to Counties	3,670,334 72
Grants to Townships	1,877,405 55
Grants to Indian Reserves	13,245 01
Payments on Connecting Links	46,578 14
Administration and Special Warrants	631,826 69

The Annual Statements to the Counties were prepared and mailed to the respective Counties during January of 1933. For summary of these statements see Appendix No. 2.

Statements in connection with the expenditure within the Suburban Areas of the Cities have also been forwarded. See Appendix No. 3.

During the latter part of 1931 the Department constructed Highway No. 7, Actinolite to Perth. This was undertaken as a Relief measure and was contributed to by the Unemployment Relief Fund. The total cost of construction, $1,958,559.70; paid by Unemployment Relief $1,000,000.00, leaving a balance borne by the Department amounting to $958,559.70.

The expenditures of the Counties were audited before payment of the grants. In all 37 audits were made. The audits of the expenditure made by Townships on roads were made after payment and any adjustments were to be made the following year. Approximately 350 audits were made.

On March 25, 1932, the Gasoline Tax was increased to .06c per gallon, and on June 1, 1932, Commission paid to Vendors was reduced to 1.66%.

Revenue

Gasoline Tax:

The collections were made by gasoline dealers who had signed agreements with the Department, in connection with the collection of the tax. During the fiscal year 1931-32 the dealers sold 228,209,346 gallons, paying a net tax amounting to $12,341,237.78. During the year 293 audits were made of the dealers' books, resulting in additional revenue of $28,244.72. Extra revenue received from dealers not under agreement, covering the one cent increase, amounted to $2,130.00.

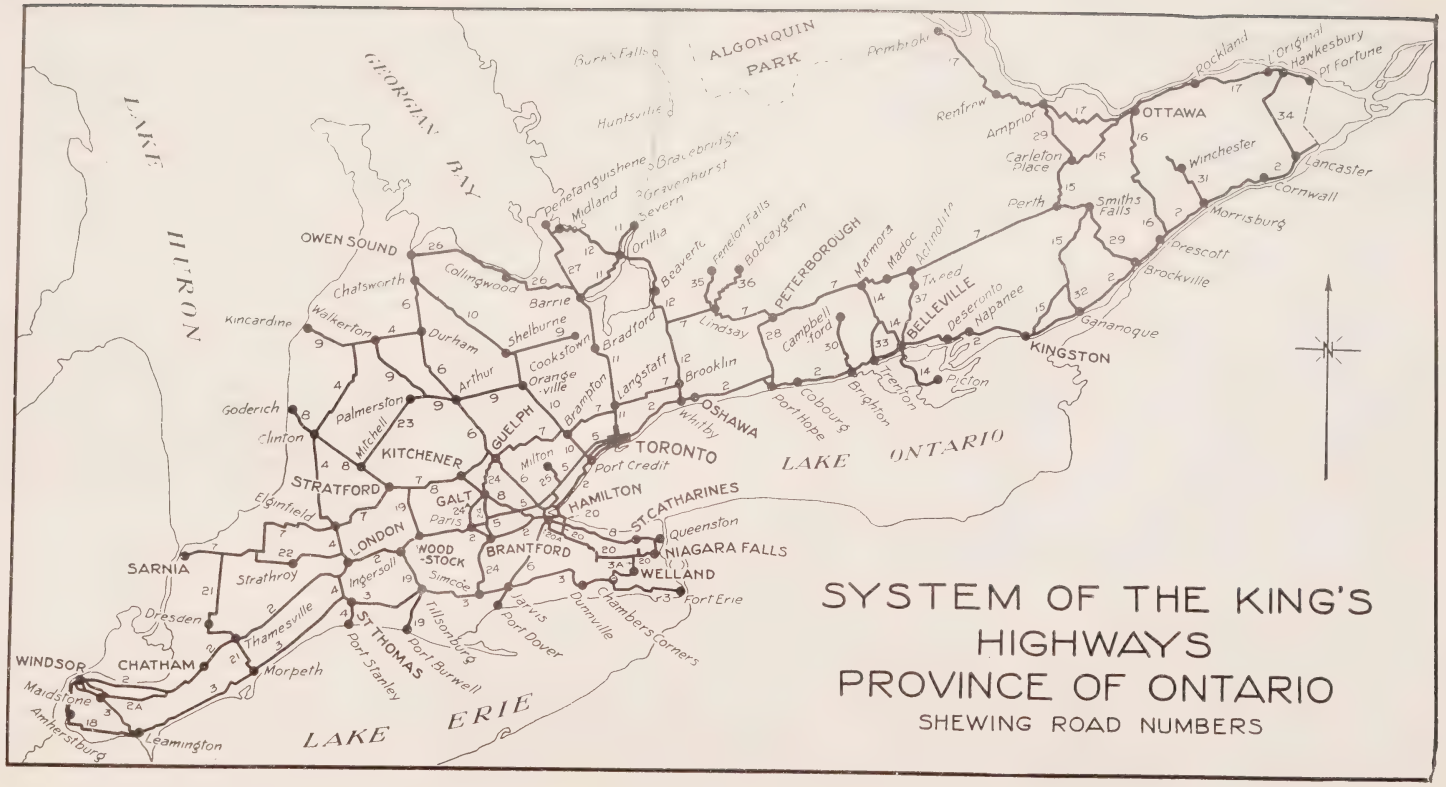
During 1932 there were 157 Vendors under agreement for the collection of the gasoline tax, and all were bonded.

During the fiscal year ending October 31, 1932, refunds of the Gasoline Tax were paid as follows:

	Claims	Amount
Municipal trucks	172	$34,712 66
Government Department	46	7,032 05
Cities, Towns and Municipalities	214	25,808 87
Aeroplanes	124	9,752 63
American	410	10,469 87
Railways	70	38,961 61
Lumbering	178	12,838 84
Cleaning	399	15,776 44
Stationary engines	4,238	61,415 94
Contractors	666	97,085 00
Motor Boats	3,254	73,943 82
Manufacturing	1,201	87,097 12
Farming	32,907	446,689 85
	43,879	$921,584 70

In connection with the refunds, our inspectors checked 387 applications, resulting in revenue amounting to $3,248.53.

Miscellaneous Revenue	$ 67,041 14
Motor Vehicles	7,376,672 73
Gasoline Tax	12,341,237 78
Permits, Garages, Signs, Pumps, etc	50,504 97
	$19,835,456 62



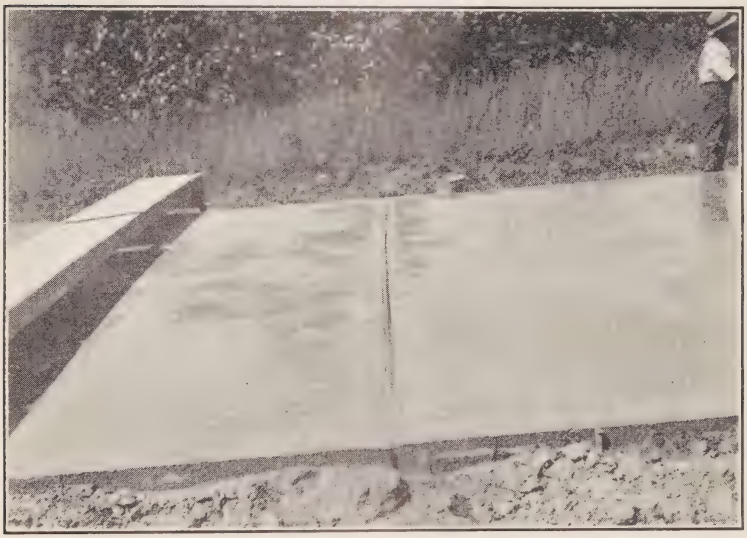
Cut Showing System of King's Highways.

ANNUAL REPORT, 1932

A. A. Smith, Chief Engineer

During the year 1932 the Department assumed 105.17 miles of road and reverted 41.19 miles, making a total of 2,998.63 miles at the end of the year controlled by the Department, classified by types of surface, as follows:

Cement concrete	1,128.27 miles
Asphalt	196.40 miles
Penetration	222.03 miles
Mixed macadam	482.90 miles
Macadam	167.47 miles
Retread	65.00 miles
Gravel	736.39 miles
Total	2,998.63 miles



Transverse Joint in Place in Concrete Pavement.

Change in Highway Design

Little change was made in the design of pavements, but the placing of transverse joints at eighty feet intervals in concrete pavements, used experimentally in a few places in 1931, was adopted as standard and used on all concrete pavements built during the year.

The method of installing these joints was corrected through the co-operation of contractors, inspectors and supply men. The result obtained in the prevention of transverse cracks have already been noted and it is believed that the pavement maintenance costs will be considerably reduced.

Experimental Work

In November an experimental section of pavement one-half mile in length, called "High Structural Strength Asphalt Pavements" was constructed on High-

way No. 19 north of Hickson's Corners. This type consists of mineral aggregates mixed with petroleum asphalt produced specifically for the purpose.

The asphalt and mineral aggregates were mixed in a standard hot-mix plant at higher temperatures than is customary for black base or sheet asphalt work. The resulting mass was of a fluid consistency making it possible to obtain maximum density when spread between steel forms—as in placing concrete.

For experimental purposes—thicknesses varying from the usual 10-inch-7-inch-10-inch cross section to a straight 8-inch slab were used. In some sections no centre or transverse joints were used.

Finishing operations consisted of a light screed to even off the mixtures followed immediately by a medium weight tamper and then by a heavy tamper some three hours afterwards. The surface was covered with pit sand and broomed evenly following the medium weight tamper.

Laying Transverse Joint in Concrete Pavement.

The aggregate used in this work was limestone varying in size from 1¼ inches to and including 200 mesh material. Some sections consist of approximately 80 per cent. limestone screenings, 10 per cent. mineral filler and 10 per cent. bitumen.

Compressive strength tests on samples taken directly from the road gave figures as high as 5,700 pounds per square inch.

It is, of course, too early to predict the behaviour of such a pavement in service.

Unemployment Relief Work

The serious unemployment problem of 1930 and 1931 was the direct means of opening up another section of the great through route from Sarnia to Ottawa,

Highway No. 5, Old St. George Subway.

Londesborough Bridge.

better known as The King's Highway No. 7, between Actinolite and Perth, a distance of approximately fifty-five miles.

This road passed through a rough and rocky country, where only settlers' trails traversed from east and west in rambling routes.

Tenders were let and grading work commenced in the late fall of 1931, and by August, 1932 work was completed, road surfaced with crushed stone or gravel and opened to fast and heavy traffic.

There were eight contracts in all, which employed about 2,700 men for the major portion of six months. The following quantities give an idea of the extent of the work accomplished:

Peters Crossing, Overhead Bridge.

Clearing and grubbing	55 miles
Earth excavation	370,000 cubic yds.
Rock excavation	720,000 cubic yds.
Crushed stone produced	100,000 tons
Concrete in structures	3,500 cubic yds.
Culverts (metal pipe)	16,000 lin. feet
Fencing	35,000 rods

Of the total expenditure, 57.8 per cent. went direct in wages to labour employed on the work. This does not include indirect labour used for the production of materials, freight, etc. On this work the Dominion Government contributed $400,000 towards the cost of labour. Local labour came from the counties of Hastings, Lennox and Addington, Frontenac and Lanark and outside quotas came from Hamilton easterly to the Quebec Boundary. The men were medically inspected before entering camps and no case of vermin or contagious disease were found in any camp during the life of the job.

Rudsdale Creek, Bridge.

Highway No. 20, Bismarck Subway.

Particular attention was paid to the frequent testing of drinking water. Free medical service was provided by the Government and a small hospital established at Arden. As a result of precautions thus taken only a few colds were reported and one case of pneumonia.

In spite of the fact that blasting was going on, on practically every 2,000 feet of the fifty-five miles, only one fatality occurred and four men seriously injured.

This new road opens up what has been considered good prospecting country, it provides a good connection between the farmers and their local markets. And, last but not least, it opens up a wonderful country second to none from a

Etobicoke Creek Bridge, Middle Road.

sportsman's point of view. Within five hours easy drive from Toronto, over this new road lie some of the best black bass lakes still to be explored, lake trout, pickerel and large pike also abound.

The work of locating the line, completing profiles and estimates was probably done in record time, taking less than three weeks to accomplish. Great credit for this is due to the engineers and surveyors in the field. One feature of the construction work worth mentioning was that no mechanical loading device was permitted, thereby increasing the number of labourers employed.

Highway No. 20

It will be of interest to recall that in 1930 the Department decided to assume a new King's Highway now known as route No. 20, which leaves Highway No. 8 about three miles east of Hamilton and passes through the historic battleground

Salmon River Bridge.

Subway on Highway No. 5, Mile 1.6, Fergus Subway, near St. George, Built 1932.

of Stoney Creek, climbing up the escarpment on a 5 per cent. grade. From this point the road ran through the Villages of Smithville, St. Ann's, Bismarck and Fonthill to join Highway No. 3A at Turners Corners about two miles east of Fonthill.

On this new road in 1932 the Department constructed twenty-one miles of concrete pavement and six miles of mixed macadam, with a view of drawing some of the exceptionally heavy traffic from the Toronto-Hamilton-Niagara Falls Road No. 8. The new standard cross section was adopted, giving shoulders ten feet wide and shallow ditches. At no place in the road is the grade steeper than 5 per cent. and no curve has a radius less than 955 feet.

Highway No. 5, Paris Subway.

Four out of five level railway crossings were eliminated prior to 1932 and every effort has been made to make conditions safe for the the travelling public.

Work Done in 1932

Cement concrete pavement	58	miles
Mixed macadam pavement	41	miles
Asphaltic concrete pavement (on concrete base)	2.8	miles
Retread pavement	4	miles
	105.8	miles
Grading	100	miles
Bridges	24	
Culverts	282	
Subways under railway crossings	5	
Overhead railway crossings	1	

Highway No. 20, Mixed Macadam Pavement.

Highway No. 20, Stoney Creek Cut, Looking South.

Pavement Construction in 1932

On Residency No. 2, with Headquarters at London.—Mixed macadam was laid north from Woodstock for a distance of seven miles and an additional one-half mile of a special mix immediately north of that, this construction was on the road between Woodstock and Shakespeare.

On Residency No. 3, with Headquarters at Stratford.—Concrete pavement was laid between Guelph and Hespeler about six and one-half miles. With the completion of this section concrete pavement is continuous between Galt and Guelph.

On Residency No. 4, with Headquarters at Grimsby.—Mixed macadam was laid from Troy westerly six miles to the Galt-Brantford Road, making that type

Close up front of Truck Snow Plow, Highway No. 6, North of Fergus.

of pavement continuous from the latter point to Clappison's Corners. East of Cayuga on Highway No. 3 the mixed macadam was continued westerly another four miles. Mixed macadam was laid on No. 20 Highway along Stoney Creek cut-off except at the main rock cut, also east and west of Elfrida to the west limits of Lincoln County over eight miles in all. From the west limits of Lincoln County concrete pavement was laid as far east as Bismarck, a distance of 13½ miles, also a section 5½ miles west of Fonthill was paved with concrete. The paving of these sections completed the pavement between Hamilton and Niagara Falls via No. 20 Highway and provides a paved route alternate to the Hamilton-Queenston Highway.

On Residency No. 5, with Headquarters at Durham.—Concrete pavement was laid between Palmerston and Listowel, a distance of seven miles, with the com-

Highway No. 20, West of Smithville, Concrete Pavement.

Highway No. 20, St. Ann's Diversion, Concrete Pavement.

pletion of this section only the gap between Listowel and Atwood remains to be paved to give continuous concrete pavement between Mitchell and Arthur. Twelve and one-half miles of concrete pavement from the east limits of Grey County through Collingwood to Stayner was completed. A heavily reinforced concrete pavement was laid from Melancthon north to Dufferin County north limits, a distance of 6¼ miles.

On Residency No. 6, with Headquarters at Toronto.—On the road north from Whitby six and three-quarter miles of concrete pavement was laid north from the Lindsay turn towards Beaverton. Two and three-quarter miles of mixed macadam surface was laid from the Newmarket side road northerly on Yonge Street. Three-quarters of a mile of asphaltic concrete on an 8-inch concrete base was laid east of the car tracks on Yonge Street from Yonge Boulevard northerly.

Highway No. 20, Stoney Creek Cut Looking North.

Also two miles of asphaltic concrete on an 8-inch concrete base, over one and one-half miles of which was forty feet wide, was laid from the Toronto city limits to Yonge Boulevard Bridge on Avenue Road.

On Residency No. 8, with Headquarters at Brockville.—Mixed macadam was laid from Cataraqui west on No. 2 Highway, a distance of five and one-half miles.

On Residency No. 9, with Headquarters at Ottawa.—Six miles of mixed macadam was laid between Almonte and Carleton Place and a mile and a quarter on Carling Avenue.

Winter Maintenance

Snow clearing and sanding operations were carried out over practically the entire King's Highway System, this being made easier by the fact that no really severe storms were experienced.

Eight Department trucks and plows were used and also thirty-two hired trucks with Department plows attached. The need for sanding highways is being continually pressed home to the Department by the users of the road and the costs are increasing each year.

Snow Plough in Operation.

Traffic Census

A traffic census was taken on the King's Highways at 204 points on July the 13th to 19th inclusive and at sixty points on February 13th to 15th inclusive. These showed a slightly increased traffic generally over previous year by 2 per cent. in Ontario cars and 2 per cent. in trucks in the summer count, while the winter count showed a general increase of over 30 per cent.

Accidents

On the King's Highways 149 fatal accidents occurred, which showed a decrease of nineteen over the previous year. A plan shows the location where the accidents occurred.

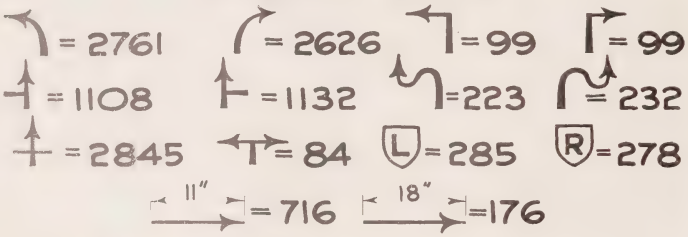
Signs

A greater effort has been made this year to improve the safety and direction signing the highway and by December, 1932, the following signs were in place.

NUMBER OF SIGNS
ON
THE KING'S HIGHWAY
AT THE END OF 1932

ROAD NUMBERS = 9044

SYMBOL SIGNS



RAILWAY CROSSING SIGNS=614

WIG-WAG SINGLE=43 WIG-WAG DOUBLE=26

BELLS WITHOUT WIG-WAG=10 FLASH SIGNALS=5

STOP SIGNS = 5971 DIRECTION SIGNS = 2561

CHECKERBOARD SIGNS=205

NARROW BRIDGE SIGNS=132

DO NOT PASS ON HILL SIGNS=420

CATTLE SIGNS=101 NO PARKING=171

SCHOOL=734

SLOW = 145

REFLECTORS=380

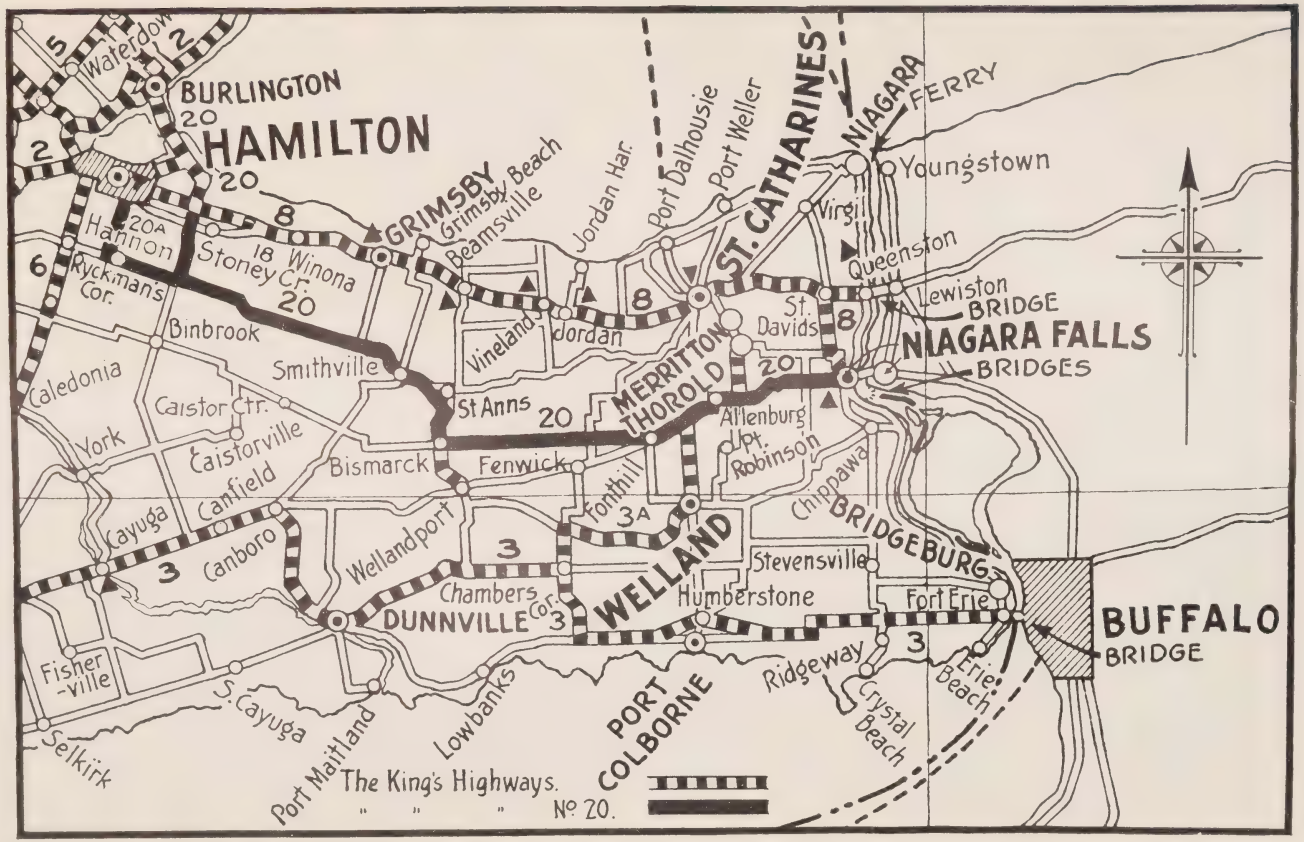
MISCELLANEOUS=1350

ZONE STRIP PAINTED=194.4 MILES

ZONE STRIP METAL = 445 FEET

GUARD RAIL=354.8 MILES

SNOW FENCE = 755 MILES



Map Showing The King's Highway, No. 20.

Signs, Gasoline Pumps and Garages

Garages

The Regulations governing public garages have been rigidly enforced. Operators are required to keep record of all cars, bought, sold, repaired, stored or wrecked; this information has been of great benefit to the police in apprehending the hit and run driver, as well as assisting in the recovery of stolen cars. There are 4,775 licensed garages in Ontario, this is an increase of 275 over the previous year.

Signs

Hundreds of signs have been removed during the past year. The Department is endeavouring to enforce the Regulations and will not permit signs to be erected at any location that will mar the picturesque scenery along our highways or where they would tend to create or become a menace to the travelling public. Particular care is given to locations in the vicinity of railway crossings.

Pumps

Practically all curb pumps have been eliminated. All new pumps must be placed at least eight feet from the limits of all the King's Highways. A close check up has been kept on all new locations and permits are not granted where, in our opinion, the location is such that it might tend to create a menace. There are now 2,200 service stations adjacent to the King's Highways.

Property and Claims Branch

This branch of the Department has done extremely good work in purchasing property required for widenings, diversions, new roads, and they also deal with claims resulting from change in grades, damages to property or crops and changes of water courses.

Surveys Branch

During 1932 the first resurveys were carried out by the Surveys Branch. These resurveys were made for the purpose of preparing a plan showing the road after the construction work had been completed. When a road is assumed by the Department a preliminary traverse is made from which a plan is prepared, but after a lapse of many years during which this road is diverted, straightened, widened, graded and paved, it is very difficult to keep this preliminary plan up to date, as these operations necessitate the shifting of the centre line, the acquiring of new right-of-way, the moving of poles, the installing of new entrances, the acquiring of stock piling areas for winter sanding and the installing of new subsurface services and many other changes.

One of the principal reasons for the resurvey is to collect and acquire title to all the property bought. This property is shown on a plan which is filed in the local registry office. These plans are filed in sections of which the township is the unit. On this plan the road we originally assumed is shown coloured grey, the properties already registered are shown coloured brown, and the parcels to which title is now being acquired are shown coloured red. Concrete monuments

with bronze caps are planted at the beginning and end of all curves and at each change in direction. Where the tangents are long these monuments are supplemented by iron bars.

During 1932 the following highways were resurveyed.

Highway No. 8 throughout its entire length from Hamilton to Queenston through the Townships of Saltfleet, North Grimsby, Clinton, Grantham, Louth and Niagara.

Highway No. 17 through the Township of Huntley.

Highway No. 6 through the Townships of Peel and Nicol.

Highway No. 9 through the Townships of Luther West and Garafraxa West.

Highway No. 26 through the Townships of St. Vincent and Collingwood.

Highway No. 24 through the Township of Guelph.

Highway No. 4 in the Townships of Yarmouth and Southwold.

Highway No. 2 through Tilbury and Raleigh Townships.

Highway No. 2 through the Township of Scarborough.

Highways recently assumed which have been resurveyed after construction are:

Highway No. 37 through the Township of Thurlow.

Highway No. 34 through the Township of Hawkesbury.

Highway No. 7 through the Townships of Elzevir, Kaladar, Kennebec, Olden, Oso, South Sherbrook and Bathurst.

Highway No. 18 through the Townships of Malden, Colchester South, Gosfield South and Mersea.

Highway No. 2 through the Townships of Sandwich South, Sandwich East and Maidstone.

In addition to these resurveys, surveys have been made and plans filed on many diversions and small parcels of land that had to be dealt with immediately. Some of these latter were expropriation surveys for which complete detail plans had to be made to submit to the Ontario Railway and Municipal Board at the expropriation proceedings.

A number of preliminary traverse surveys through townships recently assumed, were also made.

Testing Materials

The branch for testing materials has been unusually active this year, particularly on experimental work in connection with concrete and bituminous surfaces.

REPORT OF BRIDGES COMPLETED ON THE KING'S HIGHWAYS

Arthur Sedgwick, Bridge Engineer

During the year 1932, twenty-four bridges were completed on the King's Highway, a schedule of which is shown elsewhere in this report. Among the more important structures are the following:

Cedar Creek Bridge.—This was built on Highway No. 18 in Colchester Township. The new bridge consists of two 40-foot reinforced concrete girder spans skewed forty-five degrees. It replaces a 90-foot steel span built in 1916. The new roadway is thirty feet wide with a 5-foot sidewalk additional. The bridge was built on timber pile foundations. Reports from local sources were that no bottom could be reached for this bridge short of ninety feet from the bed of stream, which if true would have made it in advisable to use a centre pier and concrete superstructure. Tests, however, made by the Department's own boring machine showed that firm foundations could be secured with piles twenty-five feet long.

Etobicoke Creek Bridge.—This bridge was built on the Middle Road. The Etobicoke Creek forms the boundary line between York and Peel Counties. The bridge consists of one 90-foot reinforced concrete arch span over the stream and two 30-foot approach spans. These approach spans allow for a driveway or lane on either side of the stream. In addition to the bridge proper, a large amount of grading was required across the river "flats." A 40-foot roadway with two 6-foot sidewalks was provided on both bridge and approaches. The foundations of the bridge are on good hard shale. The cost, exclusive of grading was $37,200.00.

Maitland River Bridge.—The bridge is located on Highway No. 23 north of Monkton. It is similar in design to the Cedar Creek bridge but ten feet longer. It also replaces an old steel bridge 100 feet long on stone abutments. Piling was not required and the cost was therefore less at $14,600.00.

Omemee Bridge.—The existing steel bridge which crosses the Pigeon River in the Village of Omemee was replaced with a reinforced concrete arch bridge of the same span. The existing stone abutments were incorporated into the new design by increasing the width of the abutments the necessary amount with concrete and leaving the existing stone masonry to form a panel in the centre of the new abutment. Considerable expense and trouble was entailed in dewatering the foundations, it being found after work started that the long approach fills at each end of the bridge were filled with boulders. It was therefore found necessary to surround the entire approaches with sheet piling to shut off the water. The bridge being in the village provision was made for lighting the same. The conduits and wiring were provided by the Department and the lighting standards and fixtures were later provided by the village.

Peter's Crossing.—This is an overhead crossing of the Kingston and Pembroke Railroad on Highway No. 7. The railway runs through a ravine and the overhead bridge consists of five reinforced concrete spans on concrete piers or bents. The reinforcement in the concrete beams consists of electrically welded lattice steel girders capable of supporting their own weight and the concrete in the beams and floor slab. The timber forms for the concrete were hung from the steel

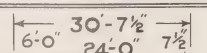
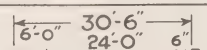
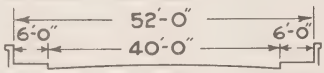
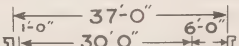
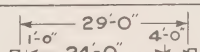
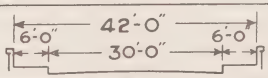
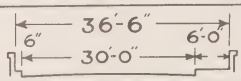
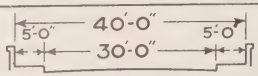
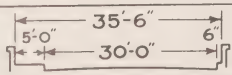
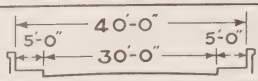
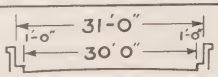
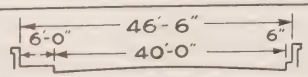
girders. This method avoided expensive false work and obstruction to the railways. The electrically welded system of lattice girders is another distinct advance in bridge engineering.

Petrolia Bridge, Highway No. 21.—This is a reinforced concrete arch bridge replacing a steel truss bridge in the manner already described in the Omemee bridge. In this case the existing abutments were of concrete and were incorporated into the concrete abutments.

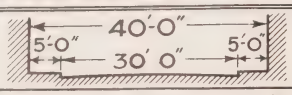
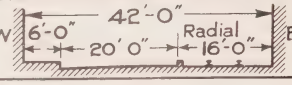
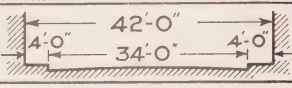
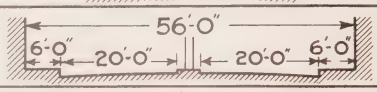
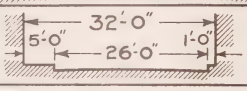
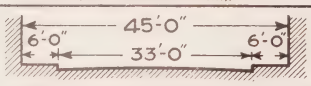
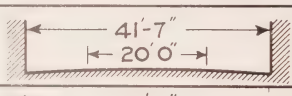
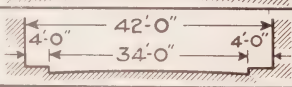
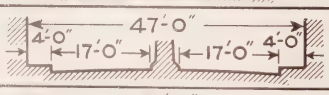
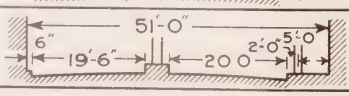
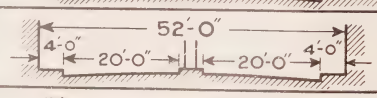
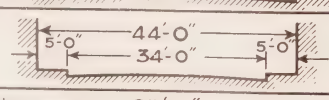
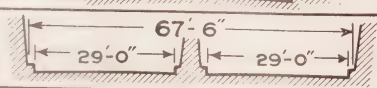
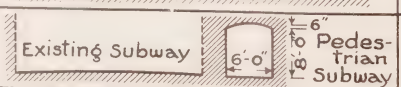
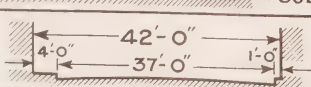
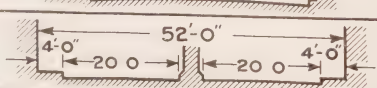
Salmon River Bridge.—This bridge was built on Highway No. 7 near Arden. It was designed and built as twin 40-foot span reinforced concrete rigid frames.

Shrine Bridge.—This bridge was built over the Wye River on Highway No.

OVERHEAD BRIDGES ON THE KING'S HIGHWAYS

LOCATION	ROAD	CROSS-SECTION	RAIL-WAY	YEAR
PUSLINCH	6		C.P.R.	1927
CEDAR SPRINGS	3		C.W.& L.E.R.	1928
SCARBORO'	2		C.N.R.	1930
TRENTON	2		C.N.R. C.P.R.	1930
OWEN SOUND	26		C.P.R.	1930
WATERFORD	2		M.C.R.	1930
ORILLIA	11		C.P.R.	1931
BLENHEIM	3		P.M.R.	1931
L'ORIGNAL	17		C.N.R.	1931
BRANTFORD	24		C.N.R.	1931
PETER'S CROSSING	7		C.P.R.	1931
STONEY CREEK	8A		T.H&B.	1932

SUBWAYS ON THE KING'S HIGHWAYS

LOCATION	ROAD	CROSS-SECTION	RAIL-WAY	YEAR
BINKLEY'S	2		T.H.&B.	1922
AURORA	11		C.N.R.	1922
BLOOR ST. E. TORONTO	2		C.N.R.	1923
COOKSVILLE	10		C.P.R.	1925
WEBSTER SIDE RD.	8A		C.N.R.	1929
SHANNONVILLE	2		C.N.R.	1929
WOODBRIDGE	7		C.P.R.	1929
PRESCOTT	2		C.N.R. C.P.R.	1930
CONCORD	7		C.N.R.	1930
BRESLAU	7		C.N.R.	1931
BISMARK	20		T.H.&B.	1931
PARIS	2		C.N.R.	1931
BRANTFORD	2		C.N.R.	1931
DOUGALL AVE. WINDSOR	3A		M.C.R.	1931
WHITBY	2		C.P.R.	1931
NORWOOD	7		C.P.R.	1932
ST. GEORGE	5		C.N.R.	1932

12 near Midland. It takes its name from the Martyr's Shrine which stands near by. This bridge replaces a steel truss bridge of 50-foot span, built in 1912 and which collapsed under the weight of a steam shovel. Being at the mouth of the river the water is of considerable depth necessitating considerable coffer-daming. On account of the uncertain nature of the river bottom, welded latticed steel girders were again used here to avoid using timber false work to support the concrete deck. The girders were encased in concrete to form reinforced concrete beams and all forming was hung from the steel girders themselves. The guard rail on this bridge consists of concrete posts and rails with steel lattice grillages set between the same. These grillages are decorated with fleur-de-lys to associate the building of this bridge with the earlier stirring experiences of the Jesuit Fathers under the old French regime in Canada.

SUBWAYS

During the year three subways were built over the King's Highway at St. George, over Highway No. 5 under the C.N.R.; at Paris over Highway No. 2, under the C.N.R.; and at Norwood over Highway No. 7 under the C.P.R.

At St. George the new subway replaces an old timber trestle over the road. The new subway permitted the road to be straightened and widened.

At Paris the new subway was required for widening and straightening the road and to give the standard headroom of fourteen feet, above the pavement. At Norwood the washing out of existing roadway due to the bursting of a dam made it desirable to relocate and straighten the new highway, reduce heavy grades and eliminate a level crossing at one time.

The depletion of the Grade Crossing Fund of the Dominion Treasury made it necessary for the Department of Highways to assume most of the cost of these subways by mutual arrangement with the railways.

BRIDGES COMPLETED ON PROVINCIAL HIGHWAYS DURING 1932

Name	Type	Span	Road No.	Township	County
Arthur No. 7	Conc. R. Frame	30′ 0″	6	Arthur	Wellington
Arthur No. 8 (Exten.)	Conc. Beam and Slab	36′ 0″	6	Arthur	Wellington
Arthur No. 9 (Exten.)	Conc. Arch	48′ 0″	6	Arthur	Wellington
Belgrave	Conc. R. Frame	25′ 0″	4	Morris	Huron
Bervie Culvert	Conc. Arch	22′ 0″	9	Kincardine	Bruce
Brown Bridge (Exten.)	Conc. Beam and Slab	29′ 0″	27	Flos	Simcoe
Cedar Creek	Conc. Beam and Slab	2 at 37′ 6″	18	Colchester S.	Essex
Etobicoke Cr. (Middle Road)	Conc. Arches	1 at 90′ 0″; 2 at 30′ 0″	Queen St.	Toronto	York
Falls River	Steel L. Girders (encased)	50′ 0″	7	Sherbrooke S.	Lanark
Hills Creek	Conc. R. Frame	40′ 0″	27	Vespra	Simcoe
Knapps Island	Conc. R. Frame	52′ 0″	18	Malden	Essex
Laggan River	Conc. R. Frame	33′ 0″	34	Kenyon and Lochiel	Glengarry
Maitland River	Conc. Beam and Slab	2 at 45′ 0″	23	Elma	Perth
Omemee	Conc. Arch	61′ 6″	7	Emily	Victoria
Ops Bridge	Conc. R. Frame	3 at 50′ 0″	7	Ops	Victoria
Peters Crossing Overhead	Steel L. Girders (encased)	3 at 40′ 0″; 2 at 50′ 0″	7	Oso	Frontenac
Petrolia No. 2	Conc. Arch	66′ 0″	21	Enniskillen	Lambton
Rudsdale Creek	Conc. R. Frame	40′ 0″	7	Bathurst	Lanark
Salmon River	Conc. R. Frame	2 at 39′ 0″	7	Kennebec	Frontenac
Salt Creek	Conc. R. Frame	35′ 0″	30	Percy	Northumberland
Shrine Bridge (Midland)	Steel L. Girders (encased)	50′ 0″	12	Tay	Simcoe
Teeswater, N. of	Conc. R. Frame	47′ 0″	4	Culross	Bruce
Toronto Twp. (Exten.)	Conc. Arch	26′ 0″	Queen St.	Toronto	Peel
Wye River No. 2 (Extension)	Conc. Beam and Slab	30′ 0″	27	Flos	Simcoe

REPORT ON MUNICIPAL ROADS

Report upon the work of the Municipal Roads Branch for the year 1932

ROBERT C. MUIR, Chief Engineer of Municipal Roads

COUNTY ROADS

Provincial aid to counties on road improvement is given through County Road Systems, under the Highway Improvement Act.

The Highway Improvement Act was initiated in 1901, when an appropriation of $1,000,000 was made by the Provincial Government with a view to aiding the construction of county roads; the Provincial subsidy being 33⅓ per cent. To-day the Province contributes 50 per cent. of the expenditure made on county roads, including construction, maintenance, machinery and superintendence expenditure.

Since the passing of The Highway Improvement Act, and to the end of 1932, a total of $117,771,915.94 has been expended on construction and maintenance of county roads, of which the Province has contributed $55,126,825.63. This includes the county expenditure of 1932, on which the provincial subsidy was paid in 1933.

A system of county roads has been established in each of the thirty-seven counties of the Province, although there are a few instances where only the more densely populated section of a county is included in the County Road System, such as the Counties of Victoria, Peterborough, Lennox and Addington, Frontenac and Renfrew.

At the end of 1932 the Province was paying subsidies to the counties on 7,890 miles of county roads—approximately 15 per cent. of the total road mileage in the area covered by the County Road System.

Approximately 97 per cent. of the road mileage under the County Road System has been surfaced with gravel, stone or other more permanent class of surfacing.

Expenditure on county roads in 1932 was as follows:

	Total Expenditure	Provincial Subsidy
Construction		
County Roads	$1,984,332 14	$ 991,452 54
Maintenance		
County Roads	2,230,078 56	1,115,004 64
Total Expenditure	$4,214,410 70	$2,106,457 18

The work on which the foregoing expenditure for construction was made included the following:—

Grading		149.42 miles
Gravel roads	110.27 miles	
Waterbound macadam	30.63 "	
Bituminous macadam	5.78 "	
Cement concrete	0.27 "	
Asphaltic concrete	20.29 "	
Total surfaced	167.33 miles	

Bridges over 10-foot span	36
Concrete slab culverts	33
Pipe and tile culverts	1,066
Tile underdrains	16 miles

In addition, approximately 2,600 miles of stone and gravel roads were resurfaced.

Construction Work

There was a considerable reduction in construction work during 1932 as compared to the previous year. The expenditure for construction alone being approximately Two Million Dollars while in 1931 the expenditure was almost Five Million Dollars. The mileage of permanent pavement construction dropped from a hundred miles in 1931 to twenty-six miles in 1932. This reduction in expenditure was necessary and due to the financial conditions throughout the Province. At the end of 1932 approximately 945 miles of permanent pavements have been laid on the County Road System.

Bridge and concrete culvert work also showed a decided drop in 1932 as compared with 1931. In 1932, thirty-six bridges and thirty-three concrete culverts were built while in 1931 eighty-one bridges and one hundred and thirty culverts were built.

Maintenance Work

The expenditure on maintenance in 1932 was about the same as 1931, approximately $2,250,000.00. This expenditure is essential for the protection of the investment made in previously constructed roads.

Several of the counties during the past year have experimented with the laying of a low cost bituminous surface with the endeavour to cope with high maintenance cost and to preserve local road materials. In addition to surface treatment of gravel and stone roads other surfaces such as re-tread and mulch were laid with satisfactory results in many instances. The results of these experiments have been received from the various counties and are being tabulated in this office. It is expected that the counties in the future will adopt a policy of laying low-cost road surfaces.

Road Accounting

A uniform system of keeping road accounts has now been established in every county and the procedure of auditing the books of the county officials and the assistance given by the Department has been favourably received and appreciated by the counties.

Road Conference

The Eighteenth Annual Road Conference was held on the 22nd and 23rd of February, 1932, and was largely attended by county and township officials.

The conference is becoming more popular each year and is creating great interest among the township officials. Over three hundred were registered at this conference which was one of the largest meetings held since such conferences were started. The discussion following the addresses was interesting and brought out much valuable information. In addition, the county road superintendents and engineers held a one-day meeting, which took the form of a round-table talk, and from the interchange of ideas it would appear to be in the interests of all concerned that such a meeting should be made an annual affair.

Several district meetings were also held during the year, arranged either by the Department or the municipalities. Such local meetings appear to create a good feeling between the municipality and the Department, and the information obtained is greatly appreciated by all those that attend.

General

The work in the counties consisted largely of resurfacing and maintaining the existing roads and otherwise preparing for future construction work.

County Suburban Roads

Provision is made under The Highway Improvement Act whereby a city or separated town may co-operate with the county council in improving the leading county roads adjacent to the city or separated town and thereby obtain a more substantial type of construction for such suburban road.

The work on suburban roads is carried out under the direction of a commission, composed of three members when the city is less than 50,000 population, and five members over 50,000 population.

At the end of 1932, twenty-two cities, all the cities within the organized counties, and three separated towns, Smith's Falls, Walkerville and Brockville, were paying toward the improvement of county suburban roads. The mileage of suburban roads is 716 miles, the expenditure on which at the end of 1932 amounted to $21,977,358.70, of which the cities and the said separated towns have contributed $5,767,011.57 or 4.8 per cent. of the total expenditure made on the County Road System.

Towards the expenditure on construction and maintenance and supervision of county suburban roads, the Province contributed 50 per cent., and the county and city each 25 per cent. The object of the city's contribution is not to relieve the county of the expenditure which they are equitably called upon to make, but rather to improve the standard of roads radiating from the city, and to permit them to be maintained in a condition suited to the traffic over them. Traffic accumulates on the main roads immediately adjacent to the city, and it becomes an unfair charge upon rural districts to construct and maintain roads suited to such accumulated traffic.

In 1932, the expenditure on county suburban roads was $865,766.78, of which the Province contributed $432,883.39 and the cities $216,441.69.

During the year 1932 the suburban road commissions constructed approximately 10 miles of permanent surfaces.

The work on the county and county suburban roads has shown remarkable improvement during the past few years, and the counties and commissions

in the majority of instances are to be commended on the method of carrying on the work.

The construction of permanent pavements on suburban roads in the close vicinity of the city should be encouraged by all suburban road commissions.

Indian Reserves

Provincial aid towards road improvement in Indian Reserves is provided by Sections 34 and 46 of The Highway Improvement Act. Section 34 provides that where a road in the reserve is a connecting link of the County Road System, the Province will contribute 50 per cent. of the expenditure made on such connecting link of the County Road System. The purpose of this assistance is to establish uniformity of improvement throughout the County Road System, as there are cases where these roads within the reserve are used extensively by through, or foreign traffic. On other roads (Section 46) within the reserve, the Province contributes 40 per cent. on expenditure made thereon, such roads being placed in the same class as township roads.

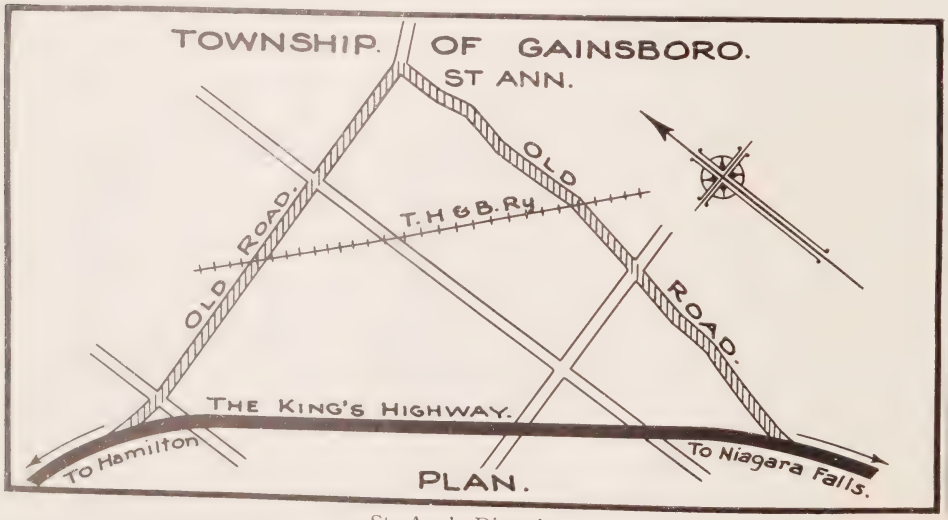
During the year 1932 the Reserves of Saugeen, Six Nations and Walpole Island received aid on a 50 per cent. basis. These reserves on this basis expended in said year $5,207.73. On a township road basis, the reserves, in 1932 expended $24.252.42.

The work within the reserves consists chiefly of grading and gravelling and the work in the majority of cases is to be commended.

TOWNSHIP ROADS

The township road plays a most important part in the development of this Province and the improvement of such roads must not be overlooked.

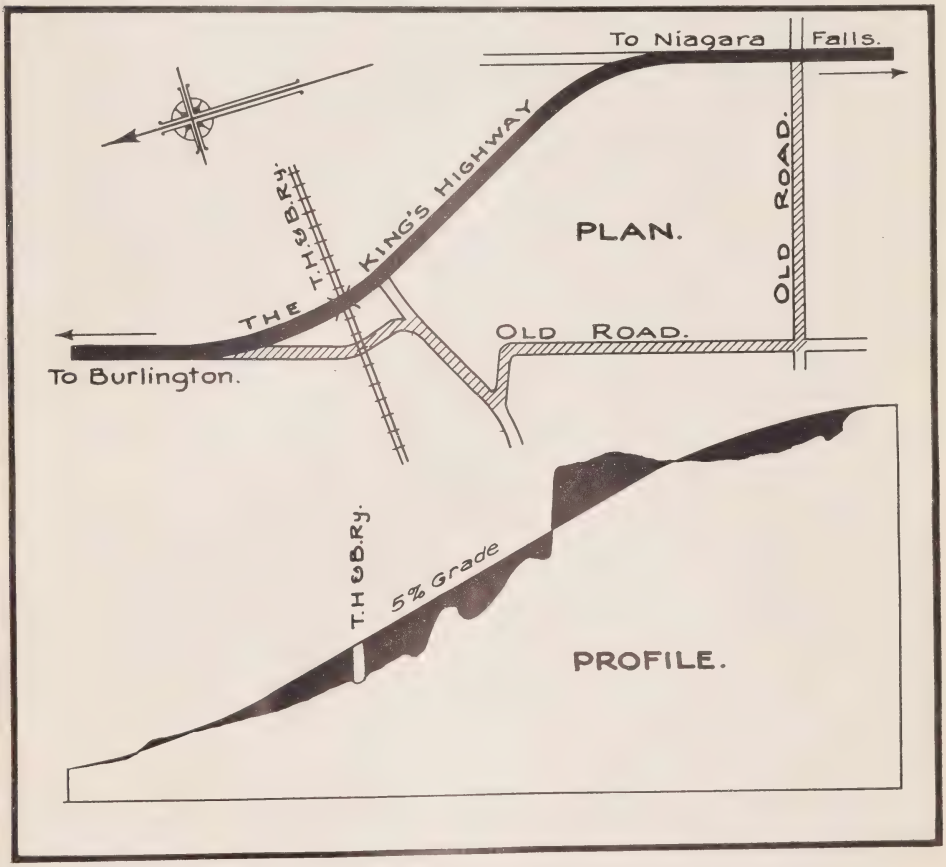
Our township roads, in the early history of the Province, depended largely on Statute Labour for improvement, this system having been created by the first Parliament of the Province (then Upper Canada) in 1796. In the old days,



St. Ann's Diversion

when traffic moved slowly on a narrow strip of gravel, Statute Labour served its purpose, but with the advent of the motor car it has become obsolete as a road builder. Statute Labour still holds in a few localities but is growing weaker. Money expenditure, raised by general levy on the township assessment, has been steadily increasing, and at the end of 1932, 343 townships have abolished Statute Labour, being approximately 93 per cent. of the townships in the organized counties.

The total approved expenditure in 1932 of the 343 townships receiving aid under The Highway Improvement Act amounted to $3,137,244.59, which is



Stoney Creek Diversion

$181,072.61 less than in 1931. Subsidies amounting to $1,315,025.55 were paid, being 40% of the cost of construction, maintenance, bridges, machinery, and 50% of the cost of superintendence. The table which follows shows the amount of subsidies paid during the last few years and it is interesting to note the rise and fall of these subsidies. Apart from the actual financial assistance, the advice and co-operation of the engineers of the Department have been of untold value to the townships and are having a marked effect upon the nature of township road improvement throughout the Province. In bridge and culvert construction, in the elimination of dangerous curves, brush obstructions, narrow

fills, and like matters, the impetus towards prompt action and the advice and guidance in the matter of methods and costs have been found to be sound and worthy of adoption.

As in other years, work on township roads consisted chiefly of renewing worn-out surfaces and keeping them smooth by frequent dragging—that is, expenditures were largely for maintenance; narrow grades are being widened out, swampy stretches cleared and drained, and effective watercourses established along roadsides to ensure a reliable road surface in all weathers.

The main objective of every township council should be to provide the farmer with a safe and convenient road in seasons of the year when he needs it most.

The following shows the growth of provincial aid to townships on road improvements, under the provisions of The Highway Improvement Act.

1916	$1,241 71	towards Superintendent's salary
1917	1,608 72	" " "
1918	1,910 59	" " "
1919	2,620 60	" " "
1920 (184 townships)	340,973 38	Commencement of aid on improvement
1921 (294 ")	708,486 91	
1922 (312 ")	649,601 47	
1923 (315 ")	614,037 88	
1924 (320 ")	638,940 11	
1925 (272 ")	988,633 29	
1926 (295 ")	1,317,146 17	
1927 (307 ")	1,619,169 74	
1928 (324 ")	1,802,640 64	
1929 (337 ")	2,105,741 41	
1930 (341 ")	2,451,334 10	
1931 (344 ")	1,805,658 51	
1932 (343 ")	1,315,025 55	
	$16,357,389 16	

Standard of Work

The class or standard of work to be done on municipal roads (county and township) will be governed largely by the importance of the road. The amount of traffic using the road will decide as to the amount of expenditure and the type of construction required on the work.

Engineers of the Department

The Department's engineers have now been established within the area allotted to them for the purpose of being in closer touch with the work and for giving their services to the municipal officials to the best advantage. The Department desires to assist and co-operate to the fullest extent with the municipalities in the improvement of roads, and requests that the superintendents communicate with the district engineers of the Department before any permanent work is commenced. The engineers of the Department are at the service of the municipalities at all times in all matters pertaining to road improvement.

APPENDICES

Nos. 1 to 10

APPENDIX

DETAILS OF CONSTRUCTION—

County	Bit. Mixed Method	Culverts Built	Bridges Built	Miles of Grading	Miles of Gravelling
Brant	3.5	2 Ext., 1 Pipe	1 Subway	.....	8.3
Bruce		1 Ext., 1 Pipe	1	.....	19.5
Carleton	1.6	.....	.....	.....	.....
Dufferin		1—1 Pipe	.....	.....	14.2
Dundas, Stormont and Glengarry		5 Culv., 3 Ext.	1 Ext.—1	3.5	3.5
Durham and Northumberland		9 Conc., 3 C.I.P	1	.....	.....
Elgin		3	.....	6.0	12.3
Essex		15—4 Ext., 90′—18″ Pipe	2	10.4	20.0
Frontenac	5.5	.....	.....	5.5	.....
Grey		1—3 Ext.	.....	.....	42.6
Haldimand	3.87	18 Ext.	.....	.....	.....
Halton		.....	.....	.....	.....
Hastings		12 Conc., 2 Ext.	.....	11.2	11.2
Huron		22 C.I.	1	.6	13.9
Kent	.18	6—1 Ext.	.....	.....	10.6
Lambton		1 Ext.	1 started in 1931 and completed in 1932	.3	12.3
Lanark	6.	3 Concrete, 11 C.I.P., 7 Ext	.....	.85	2.85
Leeds and Grenville		1 Ext.	.....	.5	12.5
Lennox and Addington		35 C.I., 2 Conc.	.....	11.2	11.2
Lincoln		7 New, 4 Ext., 24 Pipes, 2 Cattle Pass	.....	.....	.27
Middlesex		.....	1	.....	25.3
Norfolk		.....	.....	1.0	2.3
Ontario		.....	.....	6.63	.....
Oxford	7.5	7	.....	7.5	3.0
Peel		12	.....	3.23	.....
Perth		.....	1	.....	8.0
Peterborough		5 Conc., 2 C.I., 1 Ext	1 Subway	1.9	1.9
Prince Edward		.....	.....	.....	.....
Renfrew		1	.....	1.5	1.5
Russell and Prescott		.....	.....	9.8	9.1
Simcoe		1—1 Pipe	1	2.85	2.85
Victoria		12 Conc.	2	.....	.....
Waterloo		.....	1 Bridge, 1 subway	.....	5.6
Welland	.09	1 New, 1 Pipe	.....	.30	.....
Wellington		1—4 Ext.	.....	.....	11.6
Wentworth	8.1	11 New, 3 Ext., 4 Pipe	.....	.....	.....
York	3.03	5	.....	.43	.....

No. 1

KING'S HIGHWAYS, 1932

Miles W.B. 2 Course Macadam	Miles Bit. Pene-tration	Miles Asp. Concrete	Miles Concrete Pave-ment	Lin. Ft. Guard Rail	Lin. Ft. Storm Sewers	Miles Surface Treat-ment	Miles Gravel Road Maint.	Miles New Fence Erected
.....	.....	.....	.....	15,400	5,868	.....	8.3	.....
.....	.....	.....	.....	700	8,396	12.0	20.0	1.1
.....	.....	.....	.....	1,300	1,160	7.83	.....	.....
.....	.....	.....	6.2	1,000	3,477	.....	16.7	.....
.....	.....	.....	.....	4,200	.....	.....	.....	2
.....	.....	.....	.....	.....	.....	.....	19.26	1.97
.....	.....	.....	.....	1,600	.....	.....	12.3	12.8
.....	.....	.....	.....	8,976	587	.....	25.47	4.85
.....	.....	.....	.....	.....	.....	22.	.....	.....
.....	.....	.....	.....	2,659	10,822	23.1	61.5	2.7
.....	.....	.....	.....	800	850	24.95	.....	3.28
.....	.....	.....	.....	.....	88	3.38	7.94	.....
.....	.....	.....	.....	13,330	.....	.....	80.68	17.8
.....	.....	.....	.....	600	7,822	.....	24.3	6.8
.....	.....	.....	.....	3,170	20,000' 6" field tile	.....	17.26	2.95
.....	.....	.....	.....	.....	.....	.....	21.96	.40
.....	.....	.....	.....	2,300	23,496	26.	11.8	3.91
.....	.....	.....	.....	25,000	.....	28.	45.	.....
.....	.....	.....	.....	22,404	.....	.....	.....	18.7
.....	.....	.....	13.54	10,351	9,749	2.93	.....	12.5
.....	.....	.....	.....	1,000	.....	.....	25.3	3.7
.....	4.5	.....	.....	1,688	.....	4.75	2.3	.....
.....	.....	.....	6.4	5,000	.....	.....	27.0	.....
.....	.....	.....	.....	.....	1,000	.....	3.0	16.3
2.8	.....	.....	.....	.....	130	.....	.....	.....
.....	.....	.....	7.0	2,525	33,256	.....	15.1	.7
.....	.....	.....	.....	.....	.....	.....	31.78	.5
.....	.....	.....	.....	.....	.....	21.02	.....	.....
.....	.....	.....	.....	8,750	.....	.....	47.95	.4
.....	.....	.....	.....	4,000	.....	14.7	11.99	10.15
.....	.....	.....	12.2	3,741	13,997	3.8	90.7	0.4
.....	.....	.....	.....	.....	.....	12.0	22.5	.92
.....	.....	.....	2.9	5,300	6,500	.....	5.6	.....
.....	.....	.....	5.17	5,500	9,372	.....	.....	.....
.....	.....	.....	4.7	10,800	8,000	3.5	11.6	.2
.....	1.21	.....	.10	11,680	12,358	.....	.....	8.12
.....	.52	2.91	.....	.....	10,300	12.44	1.7	2.54

APPENDIX No. 2

EXPENDITURE ON KING'S HIGHWAYS, 1932

	Construction	Maintenance	Total Expenditure	Cost to Province	Cost to County	Cost to Connecting Links and Commissions	Cost to Cities (Sub. Area)
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Brant	155,783 90	19,800 57	175,584 47	134,833 68	35,116 89		5,633 90
Bruce	27,307 58	27,261 68	54,569 26	43,655 40	10,913 86		
Carleton	135,108 38	37,497 61	72,677 99	48,024 44	14,535 60		10,117 95
Dufferin	171,986 86	13,645 23	185,632 09	148,505 67	37,126 42		
Dundas, Stormont and Glengarry	93,614 85	52,647 81	146,262 66	117,010 13	29,252 53		
Durham and Northumberland	71,263 63	35,312 72	106,576 35	85,261 08	21,315 27		
Elgin	19,208 96	14,031 19	33,240 15	25,384 08	6,648 03		1,208 04
Essex	178,211 65	28,756 22	206,967 87	163,889 53	41,393 57		1,684 77
Frontenac	132,707 50	31,796 98	164,504 48	124,461 05	32,900 90		7,142 53
Grey	68,654 19	40,195 27	108,849 46	87,494 95	21,769 89		*Cr. 415 38*
Haldimand	107,540 63	33,096 00	140,636 63	112,509 30	28,127 33		
Halton	18,416 73	37,155 43	55,572 16	44,186 30	10,933 50	452 36	
Hastings	139,795 21	62,634 85	202,430 06	161,593 12	40,486 02		350 92
Huron	49,782 33	18,497 93	68,280 26	54,624 20	13,656 06		
Kent	36,337 76	35,638 06	71,975 82	56,953 07	14,395 16		627 59
Lambton	26,928 31	20,692 39	47,620 70	37,909 52	9,524 14		187 04
Lanark	176,009 58	48,827 97	224,837 55	179,870 04	44,967 51		
Leeds and Grenville	125,559 68	82,836 81	208,396 49	166,717 19	41,679 30		
Lennox and Addington	5,705 68	4,754 64	10,460 32	8,368 25	2,092 07		
Lincoln	429,182 02	23,724 63	452,906 65	361,072 87	90,581 33		1,252 45
Middlesex	19,826 31	39,635 93	59,462 24	45,868 02	11,892 45		1,701 77
Norfolk	63,594 54	10,874 13	74,468 67	59,574 93	14,893 74		
Ontario	208,301 36	41,724 16	250,025 52	200,020 42	50,005 10		
Oxford	201,218 56	11,180 53	212,399 09	154,841 40	42,479 82		15,077 87
Peel	113,336 76	22,263 03	135,599 79	108,463 07	27,052 90	83 82	
Perth	172,993 87	19,589 25	192,583 12	153,586 32	38,516 62		480 18
Peterborough	162,758 95	25,052 47	187,811 42	148,805 36	37,562 28		1,443 78
Prince Edward	163 38	28,136 19	28,299 57	22,639 66	5,659 91		
Renfrew	26,810 47	32,937 45	59,747 92	47,798 34	11,949 58		
Russell and Prescott	55,731 71	35,346 95	91,078 66	72,862 93	18,215 73		
Simcoe	438,574 79	72,319 93	510,894 72	408,715 77	102,178 95		
Victoria	62,076 32	33,772 64	95,848 96	76,679 17	19,169 79		

Waterloo	118,032 57	18,208 65	136,241 22	93,018 39	27,248 25	.....	15,974 58
Welland	208,852 70	15,439 72	224,292 42	176,636 27	44,858 48	.....	2,797 67
Wellington	134,930 24	25,501 46	160,431 70	108,532 71	32,086 34	.....	19,812 65
Wentworth	368,306 16	34,870 03	403,176 19	293,475 52	80,589 51	114 33	28,996 83
York	447,775 44	46,861 53	494,636 97	303,737 75	98,818 89	200 79	91,879 54
	4,872,461 56	1,182,518 04	6,054,979 60	4,637,579 90	1,210,593 72	851 30	205,954 68
Indian Reserve (Hastings)	176 60	1,260 68	1,437 28	1,149 82	.....	287 46	.....
Burlington Beach	246 18	1,656 82	1,903 00	1,522 40	.....	380 60	.....
Total	4,872,884 34	1,185,435 54	6,058,319 88	4,640,252 12	1,210,593 72	1,519 36	205,954 68

APPENDIX No. 3

EXPENDITURE ON PROVINCIAL SUBURBAN AREAS, 1932

City	Construction	Maintenance	Total	Part paid by City
	$ c.	$ c.	$ c.	$ c.
Belleville	201 12	1,553 51	1,754 63	350 92
Brantford	22,306 31	5,863 22	28,169 53	5,633 90
Chatham	598 66	2,539 28	3,137 94	627 59
Galt	352 91	2,417 37	2,770 28	554 05
Guelph	93,406 45	5,656 81	99,063 26	19,812 65
Hamilton	119,501 94	25,482 24	144,984 18	28,996 83
Kingston	26,264 51	9,448 13	35,712 64	7,142 53
Kitchener	71,183 16	5,919 49	77,102 65	15,420 53
London	2,155 46	6,353 40	8,508 86	1,701 77
Niagara Falls	8,921 43	1,763 12	10,684 55	2,136 91
Ottawa	28,946 06	21,643 71	50,589 77	10,117 95
Owen Sound	*Cr. 3,557 77*	1,480 85	*Cr. 2,076 92*	*Cr. 415 38*
Peterboro'	5,380 70	1,838 22	7,218 92	1,443 78
Sarnia	178 65	756 57	935 22	187 04
St. Catharines	1,609 24	4,652 98	6,262 22	1,252 45
St. Thomas	2,567 48	3,472 70	6,040 18	1,208 04
Stratford	202 35	2,198 55	2,400 90	480 18
Toronto	391,371 83	68,025 88	459,397 71	91,879 54
Welland	1,909 24	1,394 57	3,303 81	660 76
Windsor	3,093 77	5,330 10	8,423 87	1,684 77
Woodstock	74,039 93	1,349 42	75,389 35	15,077 87
	850,633 43	179,140 12	1,029,773 55	205,954 68

EXPENDITURE ON KING'S HIGHWAY CONNECTING LINKS, 1932

Town	Construction	Maintenance	Total	Proportion paid by Towns
	$ c.	$ c.	$ c.	$ c.
Port Credit	63 70	271 56	335 26	83 82
Long Branch	.....	281 93	281 93	70 48
Mimico	.....	133 77	133 77	66 89
Oakville	71 65	170 46	242 11	121 06
New Toronto	.....	126 84	126 84	63 42
Burlington	96 44	566 15	662 59	331 30
Dundas	7 00	221 66	228 66	114 33
	238 79	1,772 37	2,011 16	851 30

APPENDIX No. 4

SCHEDULE OF ASSUMPTIONS AND REVERSIONS OF SECTIONS OF THE KING'S HIGHWAY SYSTEM FOR THE YEAR 1932

During the year the system was extended by assuming 105.17 miles, less 41.19 miles reverted, making a total assumed of 2,998.63 miles. A list of the roads added to the system, together with the mileage and date of designation, also list of road and mileage reverted from the system, is as follows:

King's Highway Assumed in 1932

County	Date of Designation	Municipality	Mileage	Total Mileage
Frontenac	17th of February, 1932	Oso Township	6.74	
	17th of February, 1932	Olden Township	10.33	
	17th of February, 1932	Kennebec Township	1.33	
	17th of February, 1932	Kennebec Township	8.20	26.60
Hastings	6th of January, 1932	Thurlow Township	13.19	
	6th of January, 1932	Huntingdon Township	1.65	
	6th of January, 1932	Hungerford Township	12.96	
	6th of January, 1932	Madoc Township	4.24	
	6th of January, 1932	Elzevir Township	1.35	
	6th of January, 1932	Elzevir Township	3.20	
	10th of February, 1932	Elzevir Township	6.90	43.49
Lanark	20th of February, 1932	Bathurst Township	12.99	
	10th of February, 1932	Sherbrooke S. Township	6.25	
	10th of February, 1932	Perth Town	0.20	
	29th of June, 1932	Almonte Town	0.76	20.20
Lennox and Addington	10th of February, 1932	Kaladar Township	10.73	10.73
Peterboro	13th of July, 1932	Havelock Village	0.86	0.86
Renfrew	29th of June, 1932	Ross Township	1.37	
	29th of June, 1932	McNab Township	1.31	2.68
Simcoe	29th of June, 1932	Collingwood Town	0.48	0.48
Victoria	26th of October, 1932	Bobcaygeon Village	0.13	0.13
				105.17

Reversions from January 1st, 1932, to December 31st, 1932

County	Municipality	Year	Mileage	Total Mileage
Bruce	Culross Township	1932	0.05	
	Culross Township	1932	0.17	0.22
Carleton	Fitzroy Township	1932	0.23	
	Fitzroy Township	1932	0.19	
	Pakenham Township	1932	0.06	
	Huntley Township	1932	0.02	
	Huntley Township	1932	0.17	
	Coulbourn Township	1932	0.05	0.72
Dundas	Williamsburg Township	1932	0.23	
	Winchester Township	1932	0.14	
	Winchester Township	1932	0.08	
	Mountain Township	1932	0.38	0.83
Essex	Sandwich E. Township	1932	0.19	
	Sandwich E. Township	1932	0.15	
	Maidstone Township	1932	0.02	
	Malden Township	1932	0.18	
	Malden Township	1932	0.06	
	Malden Township	1932	0.55	
	Malden Township	1932	1.15	
	Malden Township	1932	0.32	
	Colchester Township	1932	0.06	
	Colchester Township	1932	0.33	3.01
Grenville	Oxford Township	1932	0.56	
	Edwardsburg Township	1932	0.05	0.61
Glengarry	Lochiel Township	1932	0.41	
	Kenyon Township	1932	0.08	0.49

Reversions from January 1st, 1932, to December 31st, 1932—Continued

County	Municipality	Year	Mileage	Total Mileage
Halton	Trafalgar Township	1932	0.38	
	Milton Town	1932	0.03	
	Esquesing Township	1932	0.27	0.68
Huron	Hullett Township	1932	1.59	
	Wawanosh Township	1932	0.41	
	Turnberry Township	1932	1.14	
	Turnberry Township	1932	0.13	
	Turnberry Township	1932	0.05	3.32
Hastings	Marmora Township	1932	0.06	0.06
Kent	Howard Township	1932	2.20	2.20
Lanark	Ramsay Township	1932	0.11	
	Ramsay Township	1932	0.86	
	Pakenham Township	1932	0.11	
	Pakenham Township	1932	0.08	
	Pakenham Township	1932	0.38	
	Pakenham Township	1932	0.93	
	Beckwith Township	1932	0.05	
	Beckwith Township	1932	0.16	
	Beckwith Township	1932	0.10	
	Drummond Township	1932	0.38	3.16
Leeds	Leeds Township	1932	0.42	
	Leeds Township	1932	0.10	
	Leeds Township	1932	0.14	
	Leeds Township	1932	0.37	
	Leeds Township	1932	0.28	
	Leeds Township	1932	0.79	
	Elmsley S. Township	1932	0.02	
	Elmsley S. Township	1932	0.15	
	Kitley Township	1932	0.25	
	Elizabethtown Township	1932	0.07	
	Yonge Township	1932	0.15	2.74
Lincoln	Gainsboro Township	1932	1.60	1.60
Northumberland	Brighton Township	1932	0.53	
	Brighton Township	1932	0.32	0.85
Ontario	Pickering Township	1932	1.27	
	Thorah Township	1932	0.37	
	Thorah Township	1932	0.44	
	Thorah Township	1932	0.23	
	Thorah Township	1932	0.06	
	Brock Township	1932	0.06	
	Brock Township	1932	0.29	2.72
Peterboro	Dummer Township	1932	0.06	
	Asphodel Township	1932	0.37	
	Otonabee Township	1932	3.70	
	Belmont Township	1932	4.25	
	Marmora Township	1932	0.06	8.44
Prescott	Hawkesbury W. Township	1932	0.24	
	Hawkesbury W. Township	1932	0.01	0.25
Renfrew	Horton Township	1932	0.14	
	Horton Township	1932	0.13	
	Horton Township	1932	0.09	
	McNab Township	1932	0.05	
	McNab Township	1932	0.14	
	McNab Township	1932	1.31	
	McNab Township	1932	0.19	
	Ross Township	1932	1.93	
	Admaston Township	1932	0.06	4.04
Russell	Clarence Township	1932	1.77	1.77
Simcoe	Vespra Township	1932	0.04	
	Vespra Township	1932	0.11	
	Vespra Township	1932	0.46	
	Flos Township	1932	0.09	
	Flos Township	1932	0.61	
	Flos Township	1932	0.04	
	Flos Township	1932	0.03	
	Flos Township	1932	0.06	
	Sunnidale Township	1932	0.19	

Reversions from January 1st, 1932, to December 31st, 1932—Continued

County	Municipality	Year	Mileage	Total Mileage
Simcoe	Collingwood Town	1932	0.59	
	Tiny Township	1932	0.14	
	Tay Township	1932	0.06	2.42
Wellington	Guelph Township	1932	0.07	
	Eramosa Township	1932	0.32	0.39
Waterloo	Waterloo Township	1932	0.07	0.07
York	Markham Township	1932	0.25	
	Vaughan Township	1932	0.15	
	Markham Village	1932	0.20	0.60
				41.19

APPENDIX No. 5

GROWTH OF COUNTY ROAD EXPENDITURES AND PROVINCIAL GRANTS

Year work was done	Number of Counties	Expenditure	Government Grant
1903	4	$166,149 06	$55,383 02
1904	7	291,084 42	97,028 48
1905	7	179,593 62	59,864 53
1906	10	247,102 37	82,367 45
1907	14	383,518 86	127,839 62
1908	15	429,393 57	143,131 16
1909	16	440,374 08	146,791 36
1910	17	553,312 61	184,437 54
1911	19	712,072 52	237,357 50
1912	20	898,631 18	299,543 69
1913	20	847,684 15	282,561 35
1914	20	785,521 93	261,840 61
1915	20	811,540 05	270,513 34
1916	23	955,447 19	327,663 76
1917	32	1,388,341 87	483,621 32
1918	36	2,226,899 70	815,440 01
1919	37	5,714,937 19	2,623,719 24
1920	37	7,956,863 72	3,626,418 08
1921	37	11,078,288 39	5,119,882 26
1922	37	9,162,491 79	4,258,339 83
1923	37	7,403,509 96	3,418,523 07
1924	37	6,861,451 62	3,214,321 50
1925	37	6,608,431 04	3,222,678 10
1926	37	5,838,445 12	2,913,660 96
1927	37	7,424,464 85	3,706,719 88
1928	..	8,784,420 42	4,360,222 86
1929	..	9,212,758 04	4,591,110 16
1930	..	8,929,424 27	4,463,527 11
1931	..	7,265,350 65	3,625,860 66
1932	..	4,214,410 70	2,106,457 18
Totals to date	..	$117,771,915 94	$55,126,825 63

APPENDIX No. 6

COUNTY ROAD MILEAGE AND EXPENDITURE

From Inception of County Road Systems up to December 31st, 1932, Provincial Subsidies on 1932 Expenditure being paid in 1933

County	Year of Establishment of System	Road Mileages			Total Approved Expenditure to end of 1932	Total Government Grant
		County Roads	County Suburban Roads	Total		
Brant	1917	72.0	21.5	93.5	$2,076,537 66	$1,030,034 69
Bruce	1917	303.0	.....	303.0	2,775,543 98	1,377,751 26
Carleton	1909	147.3	102.3	249.6	6,326,432 02	2,956,138 32
Dufferin	1918	136.2	.....	136.2	1,244,526 21	585,657 77
Elgin	1917	225.4	14.6	240.0	2,241,317 33	1,044,944 30
Essex	1916	219.0	48.5	267.5	5,803,551 07	2,846,163 81
Frontenac	1906	112.0	36.5	148.5	1,373,336 45	620,659 22
Grey	1918	179.0	44.0	223.0	3,039,764 54	1,497,005 42
Haldimand	1911	158.1	.....	158.1	2,263,288 37	1,030,303 78
Halton	1907	128.8	.....	128.8	2,067,261 28	937,685 24
Hastings	1904	304.0	.....	304.0	3,101,355 88	1,423,537 38
Huron	1917	350.0	.....	350.0	2,420,228 69	1,146,849 10
Kent	1917	273.0	12.0	285.0	3,681,503 74	1,837,083 63
Lambton	1918	275.0	7.0	282.0	2,412,462 83	1,157,233 82
Lanark	1903	227.5	6.5	234.0	2,612,387 91	1,228,280 21
Leeds and Grenville	1910	263.8	3.2	267.0	3,430,046 34	1,568,315 84
Lennox and Addington	1906	164.5	.....	164.5	2,534,144 02	1,221,747 71
Lincoln	1904	123.3	9.7	133.0	3,783,003 05	1,628,314 68
Middlesex	1906	361.6	28.0	389.6	3,889,229 92	1,760,304 79
Norfolk	1917	213.5	.....	213.5	2,772,507 89	1,300,580 75
Northumberland and Durham	1918	241.4	.....	241.4	2,970,967 39	1,457,197 98
Ontario	1918	177.7	13.3	191.0	1,675,630 32	804,181 13
Oxford	1904 7	191.0	10.5	201.5	2,663,965 50	1,159,284 47
Peel	1906	141.1	.....	141.1	2,396,716 89	1,060,240 54
Perth	1907	149.3	9.0	158.3	1,542,842 63	686,461 43
Peterborough	1919	106.0	31.0	137.0	896,808 02	423,763 64
Prescott and Russell	1917	198.0	.....	198.0	4,101,876 34	1,823,492 10
Prince Edward	1907	105.0	.....	105.0	1,877,355 18	849,699 78
Renfrew	1918	215.5	.....	215.5	2,994,857 13	1,453,632 69
Simcoe	1903	233.5	.....	233.5	3,701,241 21	1,695,575 96
Stormont, Dundas and Glengarry	1917	323.0	.....	323.0	5,037,526 08	2,445,240 92
Victoria	1917	133.8	.....	133.8	2,264,289 89	1,121,159 20
Waterloo	1908	140.0	13.1	153.1	3,189,036 71	1,547,919 47
Welland	1912	114.6	17.0	131.6	4,498,667 86	2,069,982 15
Wellington	1903	297.5	13.0	310.5	3,300,558 59	1,523,679 97
Wentworth	1902	110.0	43.5	153.5	3,675,794 21	1,653,261 26
York	1911	59.4	232.0	291.4	11,135,352 81	5,153,461 22
Totals	....	7,173.8	716.2	7,890.0	$117,771,915 94	$55,126,825 63

APPENDIX

SUMMARY

Statement of Work and

Name of County	Work Done						
	Miles Graded	Miles Stoned	Miles Gravelled	Tile Drain Rods	Bridges	Pipe and Tile Culverts	Other Culverts
Brant	5.25		5.75	212		16	3
Bruce	0.25			60	1	90	
Carleton				44		31	
Dufferin	0.80		0.80		3	14	3
Elgin	0.33	0.08	0.25	54		6	1
Essex	0.33	0.25 Concrete 0.08	0.08			8	
Frontenac	0.11	1.08 Asp. Con. 1.35					
Grey	1.50		1.50		2	2	
Haldimand					1	1	
Halton	0.19					19	
Hastings	14.00	5.00 Asp. Con. 8.43			1	38	1
Huron	17.75		17.75	1,760	1	50	
Kent	7.12		7.62	227	3	22	1
Lambton	6.50	4.50 Asp. Con. 2.00			3	27	2
Lanark	2.80	1.50			1	8	
Leeds and Grenville	7.25	3.25 {Bit. Mac. 2.00 Asp. Con. 4.25	2.25			17	1
Lennox and Addington						31	
Lincoln	0.76	0.38 Bit. Mac. 0.38		21		25	
Middlesex	3.75			225		5	2
Norfolk						5	1
Northumberland and Durham	12.00		33.50		1	98	
Ontario	7.90	2.30	6.45	159	4	84	
Oxford	2.85		2.10	87	5	7	5
Peel	1.05	Bit. Mac. 0.25	1.75	16		14	
Perth						2	
Peterborough	1.00	Asp. Con. 1.01	4.79		1	17	
Prescott and Russell				27	2		
Prince Edward							
Renfrew	8.00		8.50		3	17	2
Simcoe	9.35		8.60			24	1
Stormont, Dundas and Glengarry				182			8
Victoria	3.92		3.92		2	37	
Waterloo	0.13		0.13			86	
Welland	5.25	2.60 Asp. Con. 2.65				13	
Wellington	3.16		3.00	210	1	33	1
Wentworth	6.25	0.50 {Bit. Mac. 1.75 Cem. Conc 0.19 Asp. Con. 0.60				19	
York	19.87	9.19 {Bit. Mac. 1.49	1.53	1,896	1	200	1
Totals	149.42	57.06*	110.27	5,180	36	1,066	33

*Includes:
Water-bound Macadam.....30.63 miles.
Bituminous Macadam.....5.87 "
Asphaltic Concrete.....20.29 "
Cement Concrete.....27 "

No. 7

1932

Expenditure on Country Roads

Approved Expenditure

Roads and Culverts	Bridges	Machinery and Repairs	Urban Improvement	Purchase of Gravel Pits	Superintendence	Total Construction	Maintenance	Total Approved Expenditure	Subsidy 50%
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
22,909 97	2,570 00	10,779 95	5,200 22	.....	5,073 38	46,533 52	27,202 70	73,736 22	36,868 11
7,197 93	6,168 04	10,433 19	3,141 80	.....	4,296 14	31,237 10	104,884 45	136,121 55	68,060 77
4,954 13	.....	2,197 61	.....	.....	7,903 39	15,055 13	68,629 83	83,684 96	41,842 48
5,161 71	2,782 84	465 92	198 00	.....	3,355 71	11,964 18	33,886 94	45,851 12	22,882 86
2,986 99	3,365 52	8,747 41	2,030 96	.....	3,209 85	20,340 73	51,729 52	72,070 25	36,035 13
5,445 07	3,763 13	3,585 07	.....	1,000 00	4,067 01	17,860 28	52,443 16	70,303 44	35,151 72
12,832 48	.....	7,360 49	.....	.....	4,828 60	25,021 57	44,324 28	69,345 85	34,672 93
8,519 12	5,090 73	6,109 60	.....	.....	3,076 53	22,795 98	64,046 94	86,842 92	43,421 46
25,573 92	19,651 64	1,304 18	.....	.....	2,971 82	49,501 56	45,712 50	95,214 06	47,607 03
19,454 83	.....	4,592 21	.....	.....	3,275 70	27,322 74	41,150 22	68,472 96	34,236 48
136,987 54	1,606 26	6,436 82	.....	409 36	2,740 24	148,180 22	66,437 38	214,617 60	107,308 80
37,361 39	1,390 68	10,893 30	.....	1,245 00	4,728 26	55,618 63	73,786 04	129,404 67	64,702 33
7,395 64	6,187 61	9,586 20	.....	.....	4,903 79	28,073 24	69,284 11	97,357 35	48,678 68
37,794 21	8,351 43	4,742 61	1,379 07	.....	3,846 04	56,113 36	64,300 93	120,414 29	60,207 15
8,861 47	13,502 32	6,666 37	.....	.....	8,497 91	37,528 07	58,924 70	96,452 77	48,226 38
106,332 50	.....	650 76	4,779 97	.....	4,184 12	115,947 35	27,928 87	143,876 22	71,938 11
288,602 23	.....	1,188 85	.....	.....	3,108 43	292,899 51	39,162 91	332,062 42	166,031 21
6,414 82	.....	3,815 48	3,860 10	.....	5,270 31	19,360 71	44,967 31	64,328 02	32,164 01
2,510 53	2,999 53	5,523 81	119 20	.....	4,986 07	16,139 14	49,186 23	65,325 37	32,662 69
3,370 24	.....	7,099 12	7,899 26	.....	4,683 39	23,052 01	76,851 24	99,903 25	49,951 62
48,366 40	3,405 00	9,881 71	.....	.....	4,329 59	65,982 70	26,075 45	92,058 15	46,029 08
14,951 76	12,251 39	4,291 29	3,410 53	.....	5,133 09	40,038 06	43,775 06	83,813 12	41,906 56
7,276 51	4,383 41	8,015 08	329 75	.....	4,580 63	24,585 38	51,310 83	75,896 21	37,948 11
16,772 87	8,863 12	1,877 91	.....	.....	3,738 31	31,252 21	28,325 58	59,577 79	29,788 89
192 99	.....	1,520 34	.....	80 00	3,258 89	5,052 22	44,149 51	49,201 73	24,600 86
19,765 53	2,264 30	3,365 61	.....	.....	2,919 58	28,315 02	38,022 09	66,337 11	33,168 55
299 00	5,188 47	3 34	.....	.....	3,258 16	8,748 97	45,417 48	54,166 45	27,083 23
.....	.....	651 50	.....	.....	3,202 91	3,854 41	57,890 52	61,744 93	30,872 46
21,122 45	18,433 21	1,789 23	.....	.....	7,860 38	49,205 27	29,293 65	78,498 92	39,249 46
30,186 03	4,088 45	2,103 33	.....	.....	3,857 92	40,235 73	88,221 91	128,457 64	64,228 82
11,203 92	.....	1,489 91	.....	.....	4,607 20	17,301 03	100,596 15	117,897 18	58,948 59
10,453 29	3,604 36	1,918 48	28,921 67	.....	4,431 21	49,329 01	36,252 68	85,581 69	42,790 84
8,115 61	994 20	11,671 86	.....	.....	5,666 29	26,447 96	137,237 40	163,685 36	81,842 68
59,111 70	.....	387 40	.....	.....	5,044 15	64,543 25	72,320 60	136,863 85	68,431 93
5,699 27	346 55	3,812 43	.....	.....	3,687 47	13,545 72	87,157 52	100,703 24	50,351 62
30,770 73	.....	626 27	.....	.....	7,460 70	38,857 70	107,189 78	146,047 48	73,023 74
356,610 49	34,788 26	4,688 02	7,691 44	150 00	12,564 26	416,492 47	132,002 09	548,494 56	273,541 81
1,391,565 27	176,040 45	170,272 66	68,961 97	2,884 36	174,607 43	1,984,332 14	2,230,078 56	4,214,410 70	2,106,457 18

APPENDIX

SUMMARY

Schedule of Expenditure on Maintenance

For the period beginning January 1st,

Name of County	Brushing and Weed Cutting	Ditching	Grading	Dragging	Culverts (Repairs only)
	$ c.	$ c.	$ c.	$ c.	$ c.
Brant	1,914 51	496 72	.....	4,674 43	.....
Bruce	2,870 52	7,503 28	2,507 40	15,519 03	627 68
Carleton	3,510 59	3,364 51	5,484 92	3,493 37	2,328 76
Dufferin	1,315 34	212 56	386 69	5,919 16	82 24
Elgin	2,639 48	1,311 67	7,325 89	7,677 73	179 24
Essex	4,483 48	3 618 06	.....	11,085 67	80 10
Frontenac	760 24	697 44	2,226 16	16 20	789 19
Grey	1,941 26	620 45	3,673 41	6,282 84	450 65
Haldimand	2,410 17	.....	221 22	3,847 50	730 59
Halton	1,875 04	731 02	2,627 32	1,936 91	1,296 89
Hastings	2,119 92	.....	9,941 36	7,355 28	1,403 44
Huron	3,784 44	1,587 46	1,226 32	10,983 53	841 59
Kent	5,144 03	4,444 89	1,285 69	16,945 56	500 75
Lambton	3,930 53	3,835 66	109 65	20,526 88	1,099 59
Lanark	2,462 73	2,249 57	9,174 97	755 00	6,208 28
Leeds and Grenville	2,232 05	357 58	12 25	4,672 11	219 53
Lennox and Addington	1,081 97	41 85	307 92	38 80	5 60
Lincoln	3,541 29	1,616 92	228 23	722 20	344 04
Middlesex	3,642 22	561 22	1,414 19	10,434 06	325 20
Norfolk	4,635 68	690 80	1,395 51	8,893 97	1,732 49
Northumberland and Durham	2,239 63	1,398 96	1,300 31	8,591 52	434 89
Ontario	1,638 63	395 40	434 87	8,367 68	294 69
Oxford	3,411 91	241 78	498 61	8,454 10	319 71
Peel	2,040 75	223 95	925 59	4,228 35	204 55
Perth	1,446 80	283 25	2,950 28	4,004 07	117 63
Peterborough	1,221 75	621 70	2,333 93	7,824 10	841 98
Prescott and Russell	1,010 29	706 51	1,893 92	378 78	165 36
Prince Edward	1,815 30	244 65	520 63	.....	711 28
Renfrew	916 61	.....	3,161 67	1,285 31	1,403 87
Simcoe	1,763 72	1,941 02	3,600 62	13,012 92	423 69
Stormont, Dundas and Glengarry	3,594 25	1,672 96	4,238 63	.....	1,883 86
Victoria	1,038 98	217 95	122 50	5,846 97	208 42
Waterloo	1,856 34	1,041 49	6,541 65	948 60	245 12
Welland	5,744 43	539 10	1,336 21	10 50	664 46
Wellington	3,994 71	1,708 54	3,663 07	13,464 70	1,173 84
Wentworth	5,731 24	3,999 09	4,385 71	4,968 03	1,589 83
York	9,949 54	2,302 76	7,589 29	7,135 01	98 28
Totals	105,710 37	51,480 77	95,046 59	230,300 87	30,027 31

No. 8

1932

and Repairs on Country Roads

and ending December 31st, 1932

Bridges (Repairs only)	Re-surfacing	Oiling, etc.	Snow Roads	Wire Fence Bonus and Guard Rails	Urban Improve-ment	Total Expenditure	Subsidy, 50 %
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
74 01	19,135 37	402 91	386 17	118 58	.....	27,202 70	13,601 35
431 15	38,166 26	33,156 95	4,102 18	.....	.....	104,884 45	52,442 22
1,168 02	30,814 79	10,400 51	6,317 17	1,747 19	.....	68,629 83	34,314 91
214 54	23,597 17	696 35	584 25	27 34	851 30	33,886 94	16,935 27
1,171 43	28,438 38	1,126 46	416 43	1,442 81	.....	51,729 52	25,864 76
755 95	5,659 25	7,642 73	174 90	185 61	18,757 41	52,443 16	26,221 58
92 27	26,724 60	9,137 37	3,404 11	476 70	.....	44,324 28	22,162 14
275 42	39,224 15	3,766 01	1,190 41	1,687 65	4,934 69	64,046 94	32,023 47
306 05	23,126 95	11,128 37	61 65	.....	3,880 00	45,712 50	22,856 25
169 05	23,851 24	2,102 66	1,295 52	434 33	4,830 24	41,150 22	20,575 11
951 80	40,348 23	2,188 43	2,128 92	.....	.....	66,437 38	33,218 69
1,208 59	37,318 99	11,211 91	1,648 81	444 46	3,529 94	73,786 04	36,893 02
8,865 02	21,629 25	.....	21 80	1,677 96	8,769 16	69,284 11	34,642 06
544 41	27,218 09	2,846 29	253 95	1,574 41	2,361 47	64,300 93	32,150 47
3,191 18	28,837 70	1,529 01	585 57	362 42	3,568 27	58,924 70	29,462 35
93 55	16,509 95	2,797 93	290 95	6 95	736 02	27,928 87	13,964 44
117 85	21,488 98	13,092 66	751 50	18 25	2,217 53	39,162 91	19,581 46
136 09	21,282 06	10,647 36	1,174 16	779 05	4,495 91	44,967 31	22,483 66
5,260 48	23,472 67	2,210 96	819 64	.....	1,045 59	49,186 23	24,593 12
4,013 92	38,922 39	.....	1,472 30	958 95	14,135 23	76,851 24	38,425 62
877 96	8,516 47	6 45	2,068 26	641 00	.....	26,075 45	13,037 73
1,583 37	21,690 02	5,874 59	2,894 71	601 10	.....	43,775 06	21,887 53
857 09	30,419 33	4,400 91	491 37	36 36	2,179 66	51,310 83	25,655 42
609 45	14,758 95	4,374 47	908 67	50 85	.....	28,325 58	14,162 79
1,041 74	30,256 80	47 00	2,367 48	476 39	1,158 07	44,149 51	22,074 76
6,607 36	13,603 18	2,191 75	1,054 58	.....	1,721 76	38,022 09	19,011 04
597 58	5,599 46	27,863 11	598 61	.....	6,603 86	45,417 48	22,708 74
87 94	42,169 76	.....	4,238 62	3,951 68	4,150 66	57,890 52	28,945 26
1,574 68	11,166 63	4,426 58	506 05	.....	4,852 25	29,293 65	14,646 83
2,759 24	47,446 65	.....	1,265 05	222 15	15,786 85	88,221 91	44,110 96
574 43	27,285 10	45,244 18	1,925 23	.....	14,177 51	100,596 15	50,298 08
356 55	23,711 33	2,418 60	2,015 00	316 38	.....	36,252 68	18,126 34
439 57	54,337 51	3,429 81	1,587 05	680 75	66,129 51	137,237 40	68,618 70
529 17	14,388 25	28,348 55	854 65	.....	19,905 28	72,320 60	36,160 30
533 78	46,077 33	5,940 38	3,106 19	94 13	7,400 85	87,157 52	43,578 76
.....	67,424 91	12,800 30	3,078 97	.....	3,211 70	107,189 78	53,594 89
276 07	9,400 16	73,964 78	20,050 04	1,236 16	.....	132,002 09	65,974 56
48,346 76	1,004,018 31	347,416 33	76,090 92	20,249 61	221,390 72	2,230,078 56	1,115,004 64

APPENDIX

Summary of Expenditure

The following schedule shows in detail the work and approved expenditure on Township

Year	No. of Twps.	General Expenditure				
		Roads and Culverts	Bridges	Maintenance	Machinery	Purchase of Gravel Pits
		$ c.	$ c.	$ c.	$ c.	$
1920	172	432,618 62	270,596 52	828,027 27	91,704 24	8,513 47
1921	294	844,829 42	501,650 14	1,888,048 75	142,316 18	12,420 81
1922	312	774,336 84	374,158 51	1,832,200 75	87,936 37	23,573 06
1923	315	665,101 32	420,451 17	1,720,273 23	82,020 62	30,453 57
1924	320	725,631 40	334,348 63	1,861,036 56	95,758 21	12,727 08
1925	272	930,129 31	249,633 82	1,720,775 30	121,874 98	7,886 11
1926	295	1,379,063 62	282,968 54	2,154,503 96	188,804 36	33,251 25
1927	307	1,820,991 31	322,023 33	2,583,130 89	226,160 80	23,918 64
1928	324	2,153,376 26	259,421 34	2,690,025 09	272,743 58	17,539 10
1929	337	2,275,479 10	695,807 95	2,933,846 90	278,527 99	32,756 55
1930	342	2,295,855 44	369,015 98	2,684,547 12	241,648 16	35,279 17
1931	344	1,067,834 87	190,836 16	2,617,986 13	172,126 25	10,386 87
1932	343	608,807 25	94,891 52	2,085,775 69	115,493 81	6,952 47
Totals	.....	15,974,054 76	4,365,803 61	27,600,177 64	2,117,115 55	255,658 15

No. 9

on Township Roads

Roads to the end of 1932, under the provisions of The Highway Improvement Act.

		Superintendence		Total Approved Expenditure	Total Government Grant
Approved Expenditure	Government Grant	Approved Expenditure	Government Grant		
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1,631,460 12	326,291 95	36,703 60	14,681 43	1,668,163 72	340,973 38
3,389,265 30	677,852 90	76,585 03	30,634 01	3,465,850 33	708,486 91
3,092,205 53	618,440 93	77,901 44	31,160 55	3,170,106 97	649,601 47
2,918,299 91	583,659 65	75,945 51	30,378 23	2,994,245 42	614,037 88
3,029,501 88	605,900 35	82,599 41	33,039 76	3,112,101 29	638,940 11
3,030,299 52	906,559 91	164,146 58	82,073 38	3,194,446 10	988,633 29
4,038,591 73	1,219,741 01	194,317 68	97,405 16	4,232,909 41	1,317,146 17
4,976,224 97	1,504,718 50	228,349 52	114,451 24	5,204,574 49	1,619,169 74
5,393,105 37	1,673,180 47	258,554 60	129,460 17	5,651,659 97	1,802,640 64
6,216,418 49	1,960,756 75	288,782 35	144,984 66	6,505,200 84	2,105,741 41
5,626,345 87	2,304,954 18	291,311 41	146,379 92	5,917,657 28	2,451,334 10
4,059,170 28	1,675,101 43	259,146 92	130,557 08	4,318,317 20	1,805,658 51
2,911,920 74	1,201,805 37	225,323 85	113,220 18	3,137,244 59	1,315,025 55
50,312,809 71	15,258,963 39	2,259,667 90	1,098,425 77	52,572,477 61	16,357,389 16

APPENDIX No. 10

SUMMER SUMMARY

Traffic Census

DAILY AVERAGE

Location of Observer	Automobiles		Trucks	Busses	Horse-drawn Vehicles	Total Daily Average	Maximum for One Day
	Ontario	Foreign					
In 1931							
Total Daily Average Traffic at the 204 Stations	323,335	94,457	41,845	3,189	3,391	466,217	720,364
Daily Average Traffic at each Station	1,585	463	205	15	17	2,285	3,531
Per cent. Increase or Decrease over 1930	Increase 1%	Decrease 15%	Increase 7%	Decrease 6%	Decrease 6%	Decrease 2%	Decrease 2%
In 1932							
Total Daily Average Traffic at the 204 Stations	328,993	78,972	42,723	3,170	3,502	457,360	682,869
Daily Average Traffic at each Station	1,613	387	210	15	17	2,242	3,347
Per cent. Increase or Decrease over 1931	Increase 2%	Decrease 16%	Increase 2%	.....	.....	Decrease 2%	Decrease 5%

FALL SUMMARY

Traffic Census

DAILY AVERAGE

Location of Observer	Automobiles		Trucks	Busses	Horse-drawn Vehicles	Total Daily Average	Maximum for One Day
	Ontario	Foreign					
In 1931							
Total Daily Average Traffic at the 205 Stations	309,372	41,398	41,040	2,843	3,867	398,520	574,251
Daily Average Traffic at each Station	1,509	202	200	14	19	1,944	2,801
Per cent. Increase or Decrease over 1930	Increase 16 %	Decrease 2 %	Increase 5 %	Increase 15 %	Decrease 5 %	Increase 12 %	Decrease 7 %
In 1932							
Total Daily Average Traffic at the 205 Stations	233,864	30,106	45,427	2,544	3,802	315,743	458,814
Daily Average Traffic at each Station	1,141	147	221	12	19	1,540	2,238
Per cent. Increase or Decrease over 1931	Decrease 25 %	Decrease 27 %	Increase 11 %	Decrease 14 %	.....	Decrease 21 %	Decrease 20 %

NOTE.—This Count was taken for 7 days the 2nd week of July and October respectively.
1931: Summer—5 days fine, 2 days rain; Fall—6 days fine, 1 day rain.
1932: Summer—5 days fine, 2 days rain; Fall—6 days fine, 1 day rain.

SUMMER TRAFFIC CENSUS—1932

DAILY AVERAGE

Highway No.	Location of Observer	Automobiles		Trucks	Busses	Horse-drawn Vehicles	Total Daily Average	Minimum for One Day
		Ontario	Foreign					
2	WINDSOR TO QUEBEC BOUNDARY:							
	St. Joachim	858	240	141	2	21	1,262	2,302
	East of Chatham	1,125	697	163	8	3	1,996	2,796
	East of Lambeth	3,267	780	414	23	5	4,489	6,486
	Cons. I and II, Brantford Township	2,202	865	405	47	5	3,524	4,494
	Binkley's Corners	3,019	820	563	32	10	4,444	5,823
	Burlington	5,887	1,266	1,034	106	8	8,301	11,440
	Long Branch	9,411	1,153	1,498	72	25	12,159	15,337
	Junction of Old Kingston Road	10,111	883	1,049	72	20	12,135	18,666
	Welcome Corners	2,151	575	216	17	13	2,972	4,694
	East of Trenton at C.P.R. Crossing	2,370	591	280	21	6	3,268	3,873
	Cataraqui	2,012	547	240	13	26	2,838	3,341
	East of Brockville, 2 miles	1,785	722	182	10	11	2,710	3,631
	West limits of Cornwall	1,858	565	270	7	53	2,753	3,287
2A	WINDSOR TO TILBURY:							
	Woodslee	713	825	177	10	13	1,738	2,760
3	WINDSOR–FORT ERIE:							
	Maidstone, traffic West of	1,579	2,414	184	11	5	4,193	10,037
	Maidstone, traffic East of	1,506	2,038	195	10	3	3,752	8,376
	West limits of St. Thomas	2,072	636	203	17	11	2,939	3,978
	Courtland	967	514	166	9	13	1,669	2,240
	Junction of Forks Road	647	672	111	7	5	1,442	2,408
	West of Fort Erie	1,037	8,626	198	26	4	9,891	14,448
4	PORT STANLEY–DURHAM:							
	Union	2,490	195	149	.....	9	2,843	4,863
	North of London	2,794	347	306	21	8	3,476	5,892
	Brucefield	553	49	77	3	31	713	932
	At Chesley Road	452	23	49	3	24	551	662
5	TORONTO TO HIGHWAY NO. 8:							
	Islington	7,699	334	1,046	103	13	9,195	13,384
	Trafalgar	3,023	245	400	9	1	3,678	5,642

6	PORT DOVER–OWEN SOUND HIGHWAY:							
	Jarvis, traffic north of	1,292	81	188	8	18	1,587	2,475
	South of Clappison's Corners	3,470	286	437	20	4	4,217	6,251
	Junction of Highway No. 9	1,070	44	121	4	63	1,302	2.018
	Chatsworth Corners	720	49	103	4	19	895	1,142
7	SARNIA-PERTH HIGHWAY:							
	Reece's Corners	871	475	90	13	12	1,461	2,310
	Shakespeare	1,456	105	232	11	15	1,819	2,471
	East of Guelph, Guelph Township	1,350	86	183	12	9	1,640	2,593
	At Thornhill	2,340	79	212	....	4	2,635	5,904
	West limits of Lindsay	1,042	43	77	7	20	1,189	1,866
	Junction of Chemong Road	1,330	113	129	8	7	1,587	2,289
	At Madoc	608	20	114	....	44	786	868
	North of Arden	368	15	62	....	13	458	511
	West of Perth	361	26	55	....	21	463	575
8	NIAGARA FALLS GODERICH:							
	South End Corner	4,239	2,379	582	42	16	7,258	8,906
	Junction of Grimsby Park Road	4,197	1,676	632	57	14	6,576	10,063
	At Junction of Highway 24	2,848	120	437	124	24	3,553	4,137
	East of Sebringville	1,319	58	157	4	18	1,556	2,217
8A	BURLINGTON BEACH HIGHWAY:							
	At Beach Road	8,839	[illegible]	[illegible]	[illegible]	8	10,677	15,218
9	ARTHUR-KINCARDINE:							
	North limits of Clifford Village	505	21	67	....	27	620	1,076
	West of Cookstown	305	3	122	....	32	462	532
10	PORT CREDIT–CHATSWORTH:							
	[illegible]	3,801	151	686	23	10	4.671	7,336
	[illegible]	687	9	80	....	38	814	928
11	[illegible] HIGHWAY:							
	[illegible]	10,277	[illegible]	1,003	36	20	11,635	18,160
	[illegible]	[illegible]	[illegible]	186	14	6	3,690	7,136
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	[illegible]	[illegible]
12	[illegible] HIGHWAY:							
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SUMMER TRAFFIC CENSUS—1932

DAILY AVERAGE

Highway No.	Location of Observer	Automobiles		Trucks	Busses	Horse-drawn Vehicles	Total Daily Average	Minimum for One Day
		Ontario	Foreign					
14	PICTON FOXBORO HIGHWAY:							
	Bloomfield	749	36	149	9	78	1,021	1,289
	North limits of Belleville	950	37	143	7	20	1,157	1,357
	South limits of Marmora	982	51	185	12	26	1,256	1,477
15	KINGSTON–OTTAWA HIGHWAY:							
	Barriefield	1,044	105	92	3	22	1,266	1,619
	Lombardy	718	62	70	2	72	924	1,290
	Bell's Corners	922	59	114	1	26	1,122	1,881
16	JOHNSTOWN–OTTAWA HIGHWAY:							
	Johnstown Corners	484	164	52	6	8	714	1,142
	At Lot 35, Con. B, Rideau Front	2,166	337	272	6	17	2,798	3,398
17	PEMBROKE–POINT FORTUNE HIGHWAY:							
	Concessions I and II, Ross Township	381	47	46	.....	35	509	601
	At junction of Forks Road west of Arnprior	472	62	53	.....	21	608	915
	Intersection of Main Street	3,055	140	238	1	39	3,473	4,804
	Quarries	1,057	316	282	10	42	1,707	2,097
	One mile west of Alfred	347	278	59	6	99	789	1,184
	Point Fortune	215	347	44	4	25	635	972
18	WINDSOR–LEAMINGTON:							
	North of Amherstburg at P.M. Crossing	1,103	764	204	.....	8	2,079	3,350
19	PORT BURWELL TO SHAKESPEARE:							
	At Salford	783	64	105	5	67	1,024	1,396
20	HAMILTON–NIAGARA FALLS HIGHWAY:							
	At Long's Corners	767	16	107	4	20	914	1,454
	Junction of Montrose Road	3,119	1,370	345	19	14	4,867	5,364
21	MORPETH TO HIGHWAY No. 7:							
	Morpeth	521	157	53	7	4	742	1,112
	At Reece's Corner	493	37	42	12	13	597	920

22	London to Highway No. 7:							
	Poplar Hill	871	362	113	5	8	1,359	2,206
23	Mitchell Teviotdale Highway:							
	Bornholm	401	15	52	.....	30	498	773
24	Simcoe Guelph:							
	North of Waterford	1,255	60	242	1	43	1,601	2,208
	At junction of Preston Road	1,181	24	146	8	18	1,377	1,847
25	Palermo–Milton:							
	Boyne	8	9	94	4	3	478	662
26	Barrie Owen Sound Highway:							
	Lot 31, Collingwood Township	491	11	66	1	19	588	670
27	Barrie Midland-Penetanguishene Highway:							
	Junction of County Road 15, near Elmvale	1,449	42	136	15	36	1,678	3,136
28	Port Hope Peterborough:							
	At junction of Welcome Road	1,186	95	107	17	17	1,422	2,555
29	Brockville–Arnprior Highway:							
	Toledo	286	36	47	4	21	394	568
	Pakenham	370	27	39	.....	67	503	675
31	Morrisburg–Carleton County Line:							
	Morrisburg	653	262	99	9	38	1,061	1,248
32	Gananoque-Seeley's Bay Highway:							
	North limits of Gananoque	272	52	38	.....	25	387	493
33	Trenton-Stirling Highway:							
	At Frankford	447	18	77	.....	42	584	635
34	Lancaster Hawkesbury Highway:							
	At Lancaster	404	74	69	8	54	597	622
35	Bayview Hamilton Falls Highway:							
	North Shore Bridge	820	22	147	2	32	833	1,169
36	Upper Middle Streets Highway:							
	Junction of Downeyville Road	12	39	81	2	48	780	1,071
37	Belleville Actinolite Highway:							
	At junction of Highway No. 7	111	17	52	.....	21	425	684

FALL TRAFFIC CENSUS—1932

Daily Average

Highway No.	Location of Observer	Automobiles		Trucks	Busses	Horse-drawn Vehicles	Total Daily Average	Maximum for One Day
		Ontario	Foreign					
2	WINDSOR TO QUEBEC BOUNDARY:							
	St. Joachim	524	201	110	.....	5	840	1,639
	East of Chatham	981	382	302	8	19	1,692	2,281
	East of Lambeth	2,554	343	400	24	10	3,331	4,608
	Cons. I and II, Brantford Township	1,700	277	380	42	7	2,406	3,318
	Binkley's Corners	2,431	299	541	33	9	3,313	4,710
	Burlington	3,960	465	1,155	103	6	5,689	7,157
	Long Branch	6,345	457	1,499	67	24	8,392	11,337
	Junction of Old Kingston Road	5,797	335	1,090	55	12	7,289	12,127
	Welcome Corners	1,371	183	260	12	7	1,833	2,477
	East of Trenton at C.P.R. Crossing	1,878	217	340	23	7	2,465	3,115
	Cataraqui	1,597	174	279	12	26	2,088	2,797
	East of Brockville, 2 miles	1,147	225	166	6	14	1,558	2,184
	West limits of Cornwall	1,677	244	322	6	80	2,329	2,882
2A	WINDSOR TO TILBURY:							
	Woodslee	624	372	163	15	11	1,185	1,986
3	WINDSOR–FORT ERIE:							
	Maidstone, traffic west of	1,026	560	142	17	59	1,804	3,394
	Maidstone, traffic east of	909	558	136	14	21	1,638	3,348
	West limits of St. Thomas	1,671	323	184	11	10	2,199	2,874
	Courtland	916	238	180	6	13	1,353	1,740
	Junction of Forks Road	499	323	115	4	7	948	1,554
	East of Fort Erie	814	2,309	153	7	5	3,288	4,745
4	PORT STANLEY–DURHAM:							
	Union	774	22	168	.....	11	975	1,477
	North of London	2,517	120	280	14	7	2,938	4,241
	Brucefield	453	22	78	2	32	587	748
	At Chesley Road	432	9	49	3	31	524	671
5	TORONTO TO HIGHWAY No. 8:							
	Islington	6,409	192	1,133	67	10	7,811	12,503
	Trafalgar	2,869	125	441	5	1	3,441	5,140

6	PORT DOVER–OWEN SOUND HIGHWAY:							
	Jarvis, traffic north of	973	21	201	7	28	1,230	1,419
	South of Clappison's Corners	2,633	101	407	19	2	3,162	5,045
	Junction of Highway No. 9	768	21	121	4	74	988	1,400
	Chatsworth Corners	709	12	112	4	27	864	1,116
7	SARNIA PERTH HIGHWAY:							
	Reece's Corners	756	189	95	12	17	1,069	1,668
	Shakespeare	1,245	39	228	6	22	1,540	2,210
	East of Guelph, Guelph Township	1,121	17	163	10	13	1,324	2,136
	At Thornhill	1,297	16	255	1	4	1,573	3,148
	West limits of Lindsay	740	4	72	7	16	839	1,196
	Junction of Chemong Road, traffic west and south	700	8	109	5	9	831	1,399
	At Madoc	600	15	112	1	48	776	923
	North of Arden	296	7	89		5	397	445
	West of Perth	310	6	38	1	22	377	513
8	NIAGARA FALLS–GODERICH:							
	South [illegible] Corner	3,346	965	613	34	17	4,975	6,536
	Junction of Grimsby Park Road	2,596	751	878	48	9	4,292	5,966
	Junction of Highway No. [illegible]	2,089	59	453	72	18	3,421	3,889
	East of [illegible]	1,093	26	147	4	25	1,296	1,903
8A	BURLINGTON BEACH HIGHWAY:							
	At Beach Road	3,712	428	903	60	6	5,109	7,945
9	ARTHUR–KINCARDINE:							
	North limits of Clifford Village	373	9	66		36	484	539
	West of Cookstown	276	2	40	2	32	352	410
10	PORT CREDIT–CHATSWORTH:							
	Cooksville Corner	2,783	31	614	23	4	3,455	3,609
	Flesherton	779	2	155	1	84	1,021	1,299
11	TORONTO–SEVERN HIGHWAY:							
	[illegible] Corners	7,141	69	1,917	21	18	8,287	13,166
	South of Barrie	[illegible]	42	359	[illegible]	9	1,392	2,387
	At junction of Sparrow Lake Road	[illegible]	56	110	[illegible]	7	941	1,289
12	WESTBY–MIDLAND HIGHWAY:							
	South of Brooklin	[illegible]	11	180	[illegible]	12	[illegible]	2,379
	At Wireless Hill	[illegible]	5	93	[illegible]	19	[illegible]	730

FALL TRAFFIC CENSUS—1932

DAILY AVERAGE

Highway No.	Location of Observer	Automobiles		Trucks	Busses	Horse-drawn Vehicles	Total Daily Average	Maximum for One Day
		Ontario	Foreign					
14	PICTON–FOXBORO HIGHWAY:							
	Bloomfield	686	3	192	10	43	934	1,003
	North limits of Belleville	851	14	156	7	18	1,046	1,474
	South limits of Marmora	424	5	51	6	12	498	703
15	KINGSTON–OTTAWA HIGHWAY:							
	Barriefield	885	26	108	3	33	1,055	1,457
	Lombardy	453	13	62	2	56	586	955
	Bell's Corners	873	26	108	1	21	1,029	1,591
16	JOHNSTOWN–OTTAWA HIGHWAY:							
	Johnstown Corners	424	126	64	5	6	625	1,007
	At Lot 35, Con. B, Rideau Front	1,234	115	162	6	9	1,526	2,157
17	PEMBROKE–POINT FORTUNE HIGHWAY:							
	Concessions I and II, Ross Township	329	20	46	.....	47	442	521
	At junction of Forks Road west of Arnprior	411	21	53	.....	21	506	676
	Intersection of Main Street	1,770	41	252	1	36	2,100	2,893
	Quarries	919	190	245	8	39	1,401	1,875
	One mile west of Alfred	289	188	52	3	86	618	810
	Point Fortune	192	193	45	2	35	467	636
18	WINDSOR–LEAMINGTON:							
	North of Amherstburg at P.M. Crossing	923	320	205	.....	13	1,461	2,044
19	PORT BURWELL TO SHAKESPEARE:							
	At Salford	702	57	126	6	53	944	1,124
20	HAMILTON–NIAGARA FALLS HIGHWAY:							
	At Long's Corners	585	11	185	4	13	798	1,224
	Junction of Montrose Road	1,496	227	346	13	15	2,097	3,075
21	MORPETH TO HIGHWAY No. 7:							
	Morpeth	284	16	45	6	8	359	489
	Reece's Corners	360	13	41	11	15	440	694

22	London to Highway No. 7:							
	Poplar Hill	777	184	128	5	9	1,103	1,573
23	Mitchell Teviotdale Highway:							
	Bornholm	369	6	52	.....	30	457	648
24	Simcoe Guelph:							
	North of Waterford	944	9	267	.....	37	1,257	1,624
25	Palermo–Milton:							
	Boyne	485	4	116	4	4	613	1,344
26	Barrie–Owen Sound Highway:							
	Lot 31, Collingwood Township	429	1	104	.....	24	558	755
27	Barrie–Midland–Penetanguishene Highway:							
	Junction of County Road No. 15, near Elmvale	682	2	120	5	43	852	913
28	Port Hope Peterborough:							
	At junction of Welcome Road	793	17	145	13	17	985	1,388
29	Brockville–Arnprior Highway:							
	Toledo	244	11	32	4	16	307	449
	Fitzenham	336	[illegible]	91	.....	72	506	601
31	Morrisburg Carleton County Line:							
	Morrisburg	987	569	225	17	53	1,851	2,177
32	Gananoque–Seeley's Bay Highway:							
	North limits of Gananoque	256	9	48	.....	37	350	456
33	Trenton–Stirling Highway:							
	At Frankford	393	1	75	.....	15	514	646
34	Lancaster–Hawkesbury Highway:							
	At Lancaster	383	10	73	2	56	554	643
35	Lindsay Fenelon Falls Highway:							
	Near Shirt's Bridge	113	1	12	1	2	389	515
36	Lindsay Bobcaygeon Highway:							
	Junction of Downeyville Road	[illegible]	2	44	1	31	361	539
37	Belleville Actinolite Highway:							
	At junction of Highway No. 7	[illegible]	4	58	1	33	480	584

SUMMER TRAFFIC CENSUS

Daily Average

Location of Observer	Year	Automobiles		Trucks	Busses	Horse-drawn Vehicles	Total Daily Average	Maximum for One Day
		Ontario	Foreign					
PEACE BRIDGE:								
Total for one week—								
Going into the United States	1932	1,431	29,141	116	308	..	30,996	
Coming into Canada		1,447	29,333	142	351	4	31,277	
Total for one week		2,878	58,474	258	659	4	62,273	
Daily Average		411	8,353	37	94	1	8,896	13,773
LOWER NIAGARA FALLS BRIDGE:								
Total for one week—								
Going into the United States	1932	2,550	7,002	166	39	11	9,768	
Coming into Canada		2,627	6,763	186	35	10	9,621	
Total for one week		5,177	13,765	352	74	21	19,389	
Daily Average		740	1,966	50	11	3	2,770	3,922
UPPER NIAGARA FALLS BRIDGE:								
Total for one week—								
Going into the United States	1932	3,065	9,458	77	292	2	12,894	
Coming into Canada		2,607	10,291	61	285	1	13,245	
Total for one week		5,672	19,749	138	577	3	26,139	
Daily Average		810	2,821	20	83	..	3,734	4,398
LEWISTON BRIDGE:								
Total for one week—								
Going into the United States	1932	494	2,248	15	..	..	2,757	
Coming into Canada		518	2,291	14	4	..	2,827	
Total for one week		1,012	4,539	29	4	..	5,584	
Daily Average		145	648	4	1	..	798	1,509

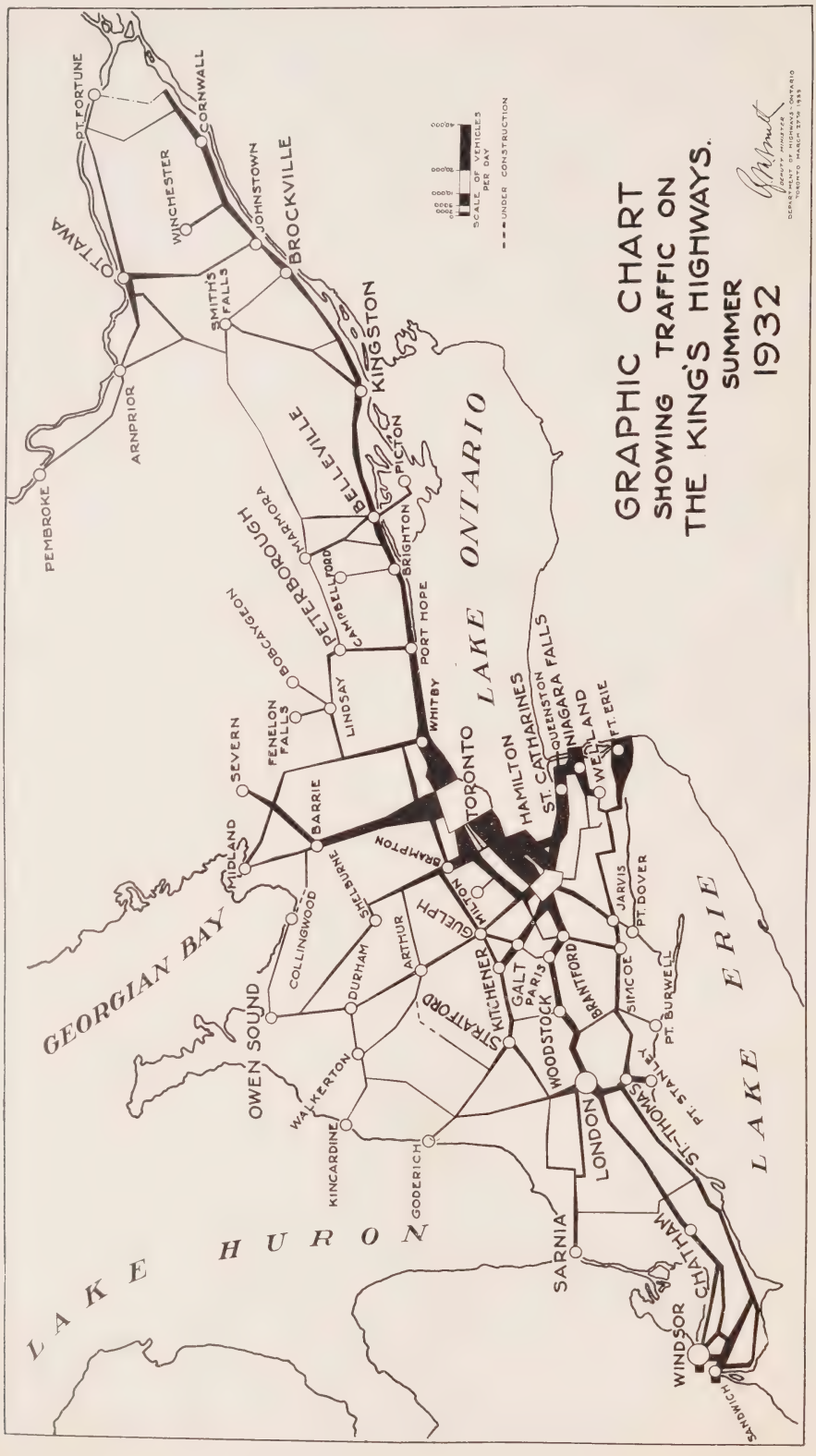
AMBASSADOR BRIDGE:								
Total for one week—								
Going into the United States	1932	1,197	12,824	154	34	..	14,209	
Coming into Canada		1,227	13,139	142	36	..	14,544	
Total for one week		2,424	25,963	296	70	..	28,753	
Daily Average		346	3,709	42	10	..	4,107	6,888
TUNNEL, WINDSOR:								
Total for one week—								
Going into the United States	1932	1,584	12,552	162	1	3	14,302	
Coming into Canada		1,540	12,311	141	1	3	13,996	
Total for one week		3,124	24,863	303	2	6	28,298	
Daily Average		446	3,552	44	..	1	4,043	5,419
Total for 6 Bridges—For one week	1932	20,287	147,353	1,376	1,386	34	170,436	
Total for 6 Bridges—Daily Average		2,898	21,050	197	198	5	24,348	35,909

FALL TRAFFIC CENSUS

Daily Average

Location of Observer	Year	Automobiles		Trucks	Busses	Horse-drawn Vehicles	Total Daily Average	Maximum for One Day
		Ontario	Foreign					
PEACE BRIDGE:								
Total for one week—								
Going into the United States	1932	4,235	6,335	107	247	11	10,935	
Coming into Canada		1,353	9,395	122	254	..	11,124	
Total for one week		5,588	15,730	229	501	11	22,059	
Daily Average		798	2,247	33	72	1	3,151	4,809
LOWER NIAGARA FALLS BRIDGE:								
Total for one week—								
Going into the United States	1932	2,580	3,965	165	35	..	6,743	
Coming into Canada		2,854	3,575	180	36	..	6,645	
Total for one week		5,434	7,540	343	71	..	13,388	
Daily Average		777	1,077	49	10	..	1,913	2,825
UPPER NIAGARA FALLS BRIDGE:								
Total for one week								
Going into the United States	1932	2,145	3,858	73	206	..	6,282	
Coming into Canada		2,407	3,991	57	223	..	6,678	
Total for one week		4,552	7,849	130	429	..	12,960	
Daily Average		650	1,121	19	61	..	1,851	2,298
LEWISTON BRIDGE:								
Total for one week								
Going into the United States	1932	371	1,363	33	..	..	1,767	
Coming into Canada		424	1,282	35	..	..	1,741	
Total for one week		795	2,645	68	..	..	3,508	
Daily Average		114	378	9	..	..	501	935

AMBASSADOR BRIDGE, WINDSOR:								
Total for one week—								
Going into the United States	1932	1,175	5,399	97	17	..	6,688	
Coming into Canada		1,020	5,617	73	19	..	6,729	
Total for one week		2,195	11,016	170	36	..	13,417	
Daily Average		314	1,574	24	5	..	1,917	3,720
TUNNEL, WINDSOR:								
Total for one week—								
Going into the United States	1932	1,722	6,214	185	4	1	8,126	
Coming into Canada		1,641	6,090	166	2	..	7,899	
Total for one week		3,363	12,304	351	6	1	16,025	
Daily Average		481	1,758	50	1	..	2,290	3,098
Total for 6 Bridges—For one week		21,927	57,084	1,291	1,043	12	81,357	
Total for 6 Bridges—Daily Average		3,132	8,155	184	149	2	11,622	17,685


GRAPHIC CHART
SHOWING TRAFFIC ON
THE KING'S HIGHWAYS.
SUMMER
1932
SCALE OF VEHICLES PER DAY
UNDER CONSTRUCTION
LAKE ONTARIO
LAKE ERIE
LAKE HURON
GEORGIAN BAY
PT. FORTUNE
CORNWALL
WINCHESTER
JOHNSTOWN
BROCKVILLE
OTTAWA
SMITH'S FALLS
ARNPRIOR
PEMBROKE
KINGSTON
PICTON
BELLEVILLE
BRIGHTON
PETERBOROUGH
PORT HOPE
CAMPBELLFORD
BOBCAYGEON
LINDSAY
WHITBY
SEVERN
FENELON FALLS
BARRIE
TORONTO
HAMILTON
ST. CATHARINES
QUEENSTON
NIAGARA FALLS
WELLAND
PT. ERIE
MIDLAND
BRAMPTON
MILTON
GUELPH
JARVIS
PT. DOVER
COLLINGWOOD
STELBURNE
DURHAM
ARTHUR
KITCHENER
GALT
PARIS
BRANTFORD
SIMCOE
PT. BURWELL
OWEN SOUND
WALKERTON
STRATFORD
WOODSTOCK
ST. THOMAS
PT. STANLEY
KINCARDINE
GODERICH
LONDON
SARNIA
CHATHAM
WINDSOR
SANDWICH

Report of Motor Vehicles Branch, 1932

To the Honourable Leopold Macaulay,
Minister of Highways.

Sir:—I have the honour to submit herewith the Annual Report of the Motor Vehicles Branch for the year 1932.

A detailed statement of the motor vehicle registrations for the calendar year 1932 and a statement duly verified by the Provincial Auditor, showing the revenue derived from all sources during the fiscal year ending October 31st, 1932, are attached, as are complete data regarding the operations of the Financial Responsibility and Accident Reporting Divisions.

Registrations

Displaying stubborn resistance to the economic trend prevailing throughout the year registrations, which had shown a steady increase during many years since the inception of motor vehicle registrations, and which during 1931 maintained almost the level of the previous year, in 1932 showed a decrease of only 5.45 per cent. The total registrations of all types of motor vehicles numbered 531,597, a decrease of 30,619 from the total of 562,216 registered in 1931 Trailer registrations, however, continued to increase and the total registered was 3,008 greater than in 1931. This increase in the number of trailers appears indicative of the increased commercial use of motor vehicles which is further shown in the fact that while passenger car registrations dropped 5.47 per cent. the combined trailer and commercial vehicle registrations showed a very slight increase.

Drivers' Licenses

There were issued during 1932, 485,558 operators' licenses, 166,169 chauffeurs' [illegible] and 983 motorcycle operators' licenses; a total of 648,710 drivers' licenses. In addition [illegible] temporary instruction permits were taken out, an increase of 12,535 over the 1931 figures. [illegible] number of operators' licenses was 4.44 per cent. less than in 1931, while the number of chauffeurs' licenses increased 3.25 per cent. This is probably due to the fact that while pleasure driving was somewhat curtailed, commercial operations continued at an almost normal scale. [illegible] number of chauffeur licenses was also increased by the applications of persons [illegible] age (16 years) during the year. Operators' licenses are not issued to those under [illegible] of age.

Revenue

The net revenue of the Branch for the fiscal year, amounted to $7,376,672.73, a substantial increase over the total of $5,610,442.80 received during the year 1931.

Eastern Conference of Motor Vehicle Administrators

The Registrar of Motor Vehicles, who is Vice-President of the Eastern Conference of Motor Vehicle Administrators, attended meetings at Washington in May and in October. The discussion of local problems and difficulties confronting some administrations, and the solutions offered, afforded those in attendance splendid opportunities to benefit by the combined experience of the authorities of some twenty jurisdictions. Progress was also made in the development of a uniform code.

The Ontario representative was appointed to the committee on Relations with Motor Car Manufacturers, at the May meeting. At the October meeting he was re-elected to the position of Vice-President of the Conference.

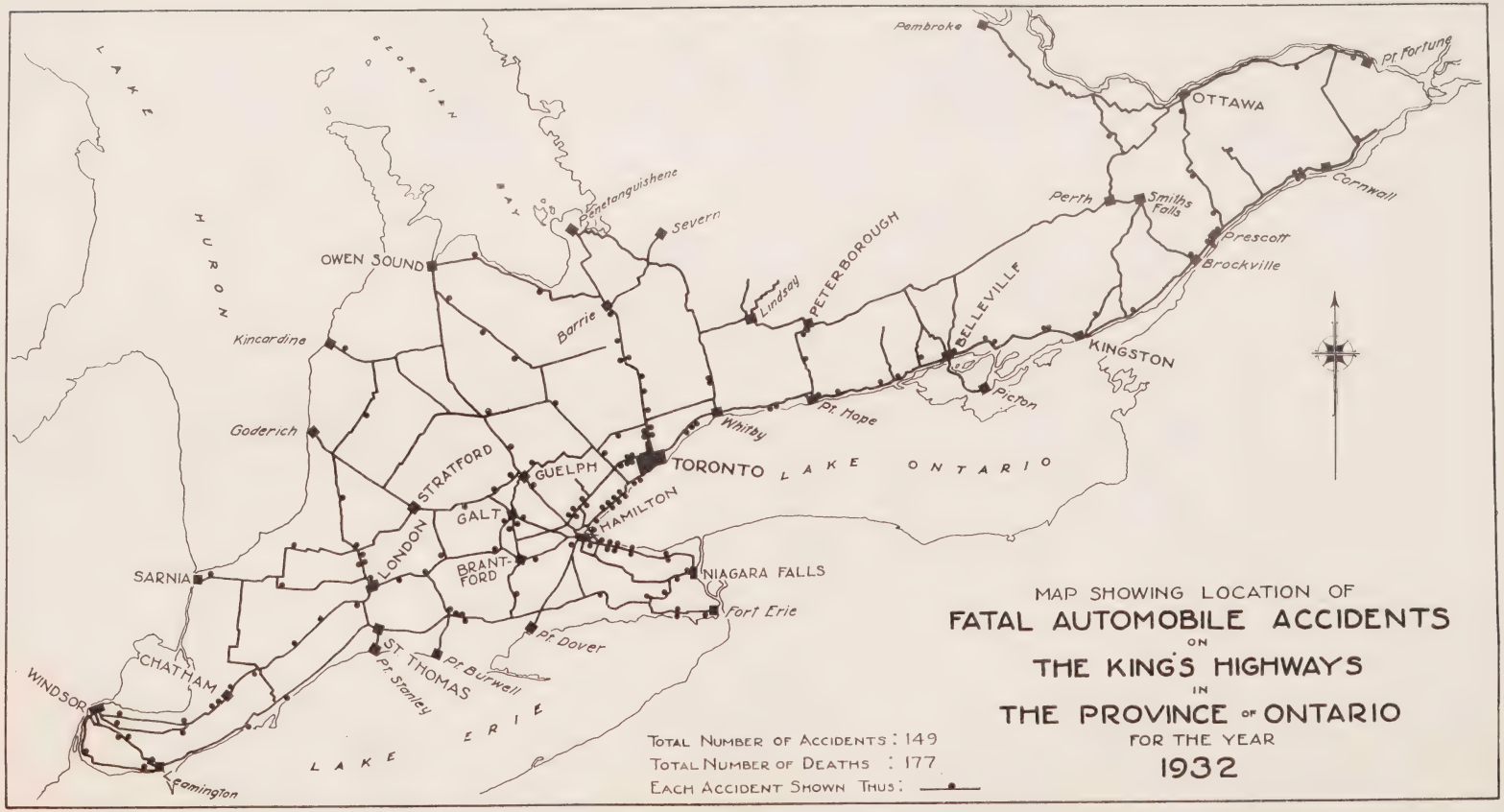
Public Vehicles

The operation of public vehicles on the King's highways and county roads [illegible] a fairly even level during 1932. The number of individuals or companies operating buses on scheduled trips over these roads, increased from 99 to 100, though the number of vehicles licensed for such traffic was reduced from 629 to 590. This decrease in the number of licenses issued may be due, at least in part, to improved operating methods which permitted economies by reducing the number of vehicles in service.

Revenue amounted to $113,522.72, an increase of $14,200.65 or 14.3 per cent. over the total of $99,322.07 collected in 1931.

Public Commercial Vehicles

The number of Public Commercial Vehicle licenses issued, also showed some decrease; a total of 3,397 vehicles being licensed in the various classes. This was 276 less than the 1931


LAKE HURON
GEORGIAN BAY
LAKE ONTARIO
LAKE ERIE
Pembroke
Pr. Fortune
OTTAWA
Cornwall
Perth
Smiths Falls
Prescott
Brockville
Penetanguishene
Severn
OWEN SOUND
Kincardine
Barrie
Lindsay
PETERBOROUGH
BELLEVILLE
KINGSTON
Picton
Pt. Hope
Whitby
Goderich
STRATFORD
GUELPH
TORONTO
GALT
HAMILTON
LONDON
BRANTFORD
SARNIA
NIAGARA FALLS
Fort Erie
Pt. Dover
ST. THOMAS
Pt. Burwell
Pt. Stanley
CHATHAM
WINDSOR
Leamington
MAP SHOWING LOCATION OF
FATAL AUTOMOBILE ACCIDENTS
ON
THE KING'S HIGHWAYS
IN
THE PROVINCE OF ONTARIO
FOR THE YEAR
1932
TOTAL NUMBER OF ACCIDENTS : 149
TOTAL NUMBER OF DEATHS : 177
EACH ACCIDENT SHOWN THUS:

record of 3,673. The ownership and operation of these vehicles was distributed among 1,938 individuals or companies.

Revenue of $88,325.53 was derived from the licensing of these vehicles and the number of licenses issued for each class of carrier was as follows—Class "A", 1,069; Class "B", 161; Class "C", 762; Class "D", 232; Class "E", 1,173.

Financial Responsibility

During the year, the Financial Responsibility Division dealt with 3,777 cases, in which the vehicle permits and driving licenses of 2,982 persons were suspended under the provisions of Part XIII of The Highway Traffic Act. Up to December 31st, 1932, 8,461 suspensions had been imposed since September 1st, 1930, when this section of the Act came into force. Of these suspensions, 3,377 had been relieved by the filing of proof of financial responsibility, leaving 5,084 in force at the end of the year.

Accident Reporting

Fatalities from motor vehicle accidents decreased 12.1 per cent. from the 1931 total. There were 9,171 accidents reported, in which 502 lives were lost, 8,231 persons suffered injury, and property to the value of $994,510 was destroyed.

Highway Safety

The Branch continued its activities for the promotion of safety on our streets and highways. The sum of $30,000 was expended on newspaper and billboard advertising and on other forms of publicity. In addition, radio broadcasts were sponsored over stations located in Toronto, Ottawa, Windsor and Chatham. The material for these broadcasts was largely prepared in the offices of the Branch and the addresses were based on figures derived from the statistics compiled under the Accident Reporting Law.

Respectfully submitted,

J. P. Bickell
Registrar of Motor Vehicles.

MOTOR VEHICLE REGISTRATIONS, 1932

Automobile permits	[illegible]
Commercial permits	[illegible]
Convertible permits	3,239
Trailer permits	[illegible]
Motorcycle permits	4,088
Automobile dealers' permits	[illegible]
Commercial dealers' permits	[illegible]
Motorcycle dealers' permits	[illegible]
Operators	[illegible]
Instruction permits	50,62
Motorcycle operators	983
Chauffeurs	162,169
In Transits	11,37
Transfers	55,8
Public vehicles	590
Public commercial vehicles	[illegible]

PASSENGER CARS REGISTERED, 1932

Counties		Cities		
Algoma	2,507	Sault Ste. Marie	2,871	5,378
Brant	3,207	Brantford	4,035	7,242
Bruce	6,588	[illegible]	[illegible]	6,588
Carleton	4,529	Ottawa	14,591	19,120
Dufferin	2,530	[illegible]	[illegible]	2,530
Dundas	2,538	[illegible]	[illegible]	2,538
Durham	3,826	[illegible]	[illegible]	3,826
Elgin	4,945	St. Thomas	3,011	7,956
Essex	12,882	Windsor	10,094	22,976
Frontenac	2,869	Kingston	3,406	6,275
Glengarry	1,880	[illegible]	[illegible]	1,880
Grenville	2,370	[illegible]	[illegible]	2,370
Grey	6,827	Owen Sound	1,717	8,544
Haldimand	4,316	[illegible]	[illegible]	4,316
Haliburton	184	[illegible]	[illegible]	184

PASSENGER CARS REGISTERED, 1932—*Continued*

Counties		Cities		
Halton	4,403		....	4,403
Hastings	7,047	Belleville	2,204	9,251
Huron	7,488		....	7,488
Kenora	1,128		....	1,128
Kent	8,137	Chatham	2,785	10,922
Lambton	6,973	Sarnia	3,042	10,015
Lanark	4,595		....	4,595
Leeds	5,122		....	5,122
Lennox and Addington	2,733		....	2,733
Lincoln	4,154	St. Catharines	4,016	8,170
Manitoulin	1,015		....	1,015
Middlesex	8,355	London	11,749	20,104
Muskoka	2,321		....	2,321
Nipissing	2,208	North Bay	1,554	3,762
Norfolk	5,186		....	5,186
Northumberland	4,486		....	4,486
Ontario	5,224	Oshawa	3,375	8,599
Oxford	6,956	Woodstock	2,406	9,362
Parry Sound	2,299		....	2,299
Peel	4,821		....	4,821
Perth	5,747	Stratford	2,412	8,159
Peterborough	2,942	Peterborough	3,212	6,154
Prescott	1,834		....	1,834
Prince Edward	2,726		....	2,726
Rainy River	1,325		....	1,325
Renfrew	5,184		....	5,184
Russell	1,534		....	1,534
Simcoe	11,569		....	11,569
Stormont	3,324		....	3,324
Sudbury	119	Sudbury	2,841	2,960
Thunder Bay	1,083	Fort William Port Arthur	2,420 2,111	5,614
Temiskaming	5,338		....	5,338
Victoria	4,751		....	4,751
Waterloo	6,691	Galt Kitchener	1,887 4,238	12,816
Welland	7,428	Niagara Falls Welland	3,966 1,758	13,152
Wellington	5,993	Guelph	2,729	8,722
Wentworth	4,995	Hamilton	20,080	25,075
York	16,789	Toronto	98,067	114,856
Foreign	325		....	325
	246,346		216,577	462,923

PASSENGER CARS

Cylinders

Four cylinders	247,723	
Six cylinders	197,162	
Eight cylinders	17,105	
Twelve cylinders	107	
Sixteen cylinders	31	
Electric	9	
Steam	17	
Free	769	
		462,923

Registrations

Originals	24,571	
Renewals	438,352	
		462,923

COMMERCIAL CARS REGISTERED, 1932

Counties		Cities		Total
Algoma	387	Sault Ste. Marie	379	
Brant	388	Brantford	647	
Bruce	438			
Carleton	537	Ottawa	1,727	
Dufferin	176			
Dundas	253			
Durham	352			
Elgin	499	St. Thomas	237	
Essex	1,715	Windsor	1,520	
Frontenac	306	Kingston	538	
Glengarry	166			
Grenville	272			
Grey	386	Owen Sound	200	
Haldimand	442			
Haliburton	38			
Halton	672			
Hastings	737	Belleville	329	
Huron	581			
Kenora	282			
Kent	914	Chatham	476	
Lambton	490	Sarnia	278	
Lanark	400			
Leeds	612			
Lennox and Addington	277			
Lincoln	998	St. Catharines	709	
Manitoulin	103			
Middlesex	823	London	1,481	
Muskoka	310			
Nipissing	338	North Bay	26	
Norfolk	705			
Northumberland	610			
Ontario	608	Oshawa		
Oxford	891	Woodstock		
Parry Sound	323			
Peel	849			
Perth	567	Stratford		
Peterborough	277	Peterborough		
Prescott	181			
Prince Edward	363			
Rainy River	334			
Renfrew	447			
Russell	326			
Simcoe	1,189			
Stormont	363			
Sudbury	88	Sudbury	385	
Thunder Bay	229	Fort William	453	
		Port Arthur	325	
Temiskaming	588			
Victoria	820			
Waterloo	697	Galt	240	
		Kitchener	605	
Welland	1,167	Niagara Falls	482	
		Welland	297	
Wellington	451	Guelph	426	
Wentworth	1,182	Hamilton	3,185	
York	2,648	Toronto	14,703	
Foreign	317			
	30,112		31,235	

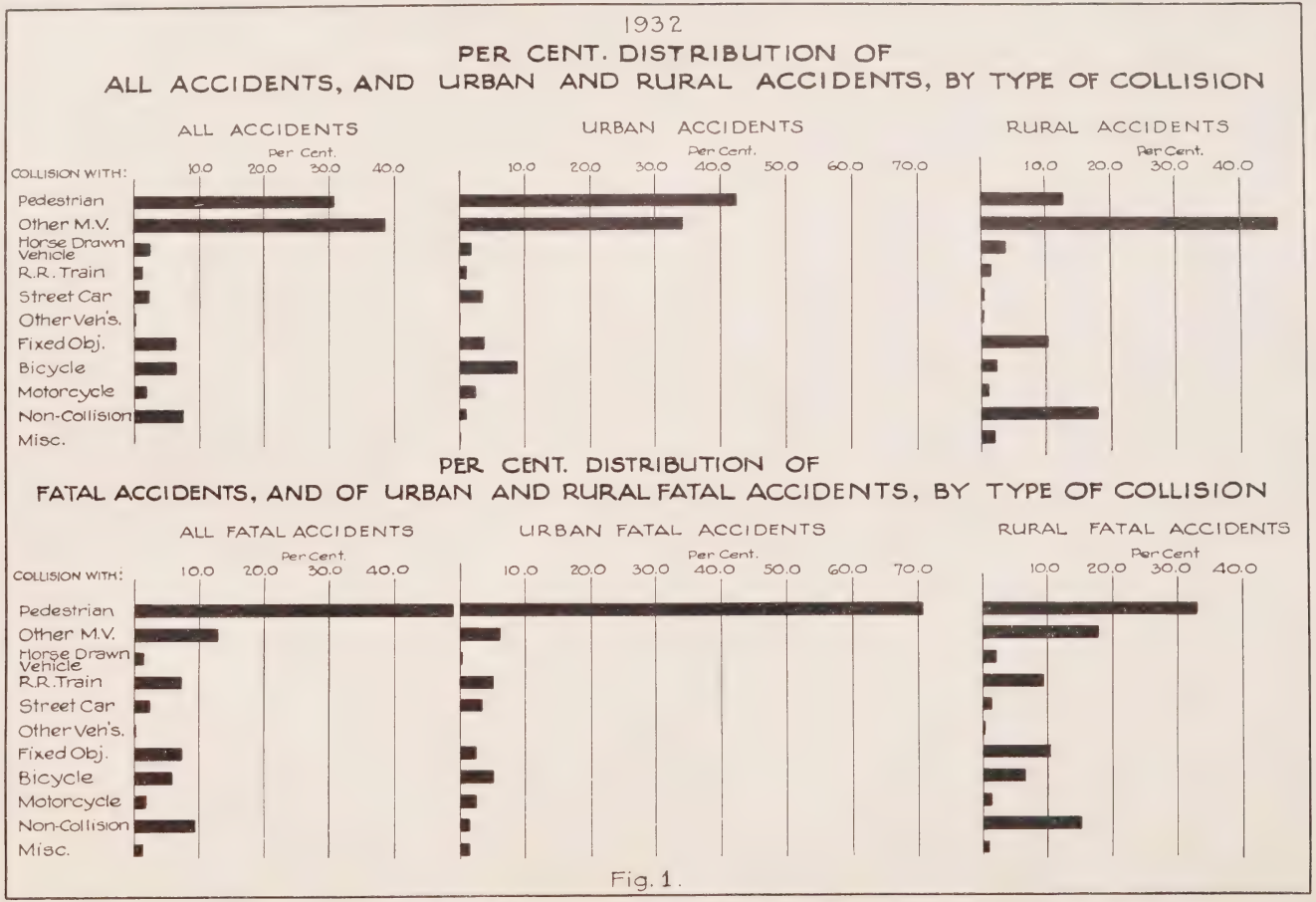

1932
PER CENT. DISTRIBUTION OF
ALL ACCIDENTS, AND URBAN AND RURAL ACCIDENTS, BY TYPE OF COLLISION
ALL ACCIDENTS
URBAN ACCIDENTS
RURAL ACCIDENTS
COLLISION WITH:
Per Cent.
10.0 20.0 30.0 40.0
10.0 20.0 30.0 40.0 50.0 60.0 70.0
Pedestrian
Other M.V.
Horse Drawn Vehicle
R.R. Train
Street Car
Other Veh's.
Fixed Obj.
Bicycle
Motorcycle
Non-Collision
Misc.
PER CENT. DISTRIBUTION OF
FATAL ACCIDENTS, AND OF URBAN AND RURAL FATAL ACCIDENTS, BY TYPE OF COLLISION
ALL FATAL ACCIDENTS
URBAN FATAL ACCIDENTS
RURAL FATAL ACCIDENTS
COLLISION WITH:
Per Cent.
10.0 20.0 30.0 40.0
10.0 20.0 30.0 40.0 50.0 60.0 70.0
Pedestrian
Other M.V.
Horse Drawn Vehicle
R.R. Train
Street Car
Other Veh's.
Fixed Obj.
Bicycle
Motorcycle
Non-Collision
Misc.

Fig. 1.

CONVERTIBLE VEHICLES REGISTERED, 1932

Counties		Cities		Total
Algoma	11	Sault Ste. Marie	[illegible]	[illegible]
Brant	39	Brantford	[illegible]	[illegible]
Bruce	37			[illegible]
Carleton	89	Ottawa	[illegible]	[illegible]
Dufferin	12			[illegible]
Dundas	10			[illegible]
Durham	59			[illegible]
Elgin	58	St. Thomas	[illegible]	[illegible]
Essex	72	Windsor	[illegible]	[illegible]
Frontenac	140	Kingston	[illegible]	[illegible]
Glengarry	16			[illegible]
Grenville	17			[illegible]
Grey	64	Owen Sound	[illegible]	[illegible]
Haldimand	10			[illegible]
Haliburton	[illegible]			[illegible]
Halton	57			[illegible]
Hastings	41	Belleville	[illegible]	[illegible]
Huron	21			[illegible]
Kenora	8			[illegible]
Kent	59	Chatham	[illegible]	[illegible]
Lambton	55	Sarnia	[illegible]	[illegible]
Lanark	53			[illegible]
Leeds	63			[illegible]
Lennox and Addington	24			[illegible]
Lincoln	79	St. Catharines	[illegible]	[illegible]
Manitoulin	2			[illegible]
Middlesex	112	London	[illegible]	[illegible]
Muskoka	22			[illegible]
Nipissing	18	North Bay	[illegible]	[illegible]
Norfolk	50			[illegible]
Northumberland	32			[illegible]
Ontario	41	Oshawa	[illegible]	[illegible]
Oxford	196	Woodstock	[illegible]	[illegible]
Parry Sound	7			[illegible]
Peel	33			[illegible]
Perth	30	Stratford	[illegible]	[illegible]
Peterborough	50	Peterborough	[illegible]	[illegible]
Prescott	10			[illegible]
Prince Edward	7			[illegible]
Rainy River	20			[illegible]
Renfrew	11			[illegible]
Russell	3			[illegible]
Simcoe	142			[illegible]
Stormont	33			[illegible]
Sudbury	[illegible]	Sudbury	[illegible]	[illegible]
Thunder Bay	9	Fort William	[illegible]	[illegible]
		Port Arthur	[illegible]	[illegible]
Temiskaming	51			[illegible]
Victoria	48			[illegible]
Waterloo	45	Galt	[illegible]	[illegible]
		Kitchener	[illegible]	[illegible]
Welland	147	Niagara Falls	[illegible]	[illegible]
		Welland	[illegible]	[illegible]
Wellington	35	Guelph	[illegible]	[illegible]
Wentworth	40	Hamilton	[illegible]	[illegible]
York	196	Toronto	[illegible]	[illegible]
	2,484		[illegible]	[illegible]

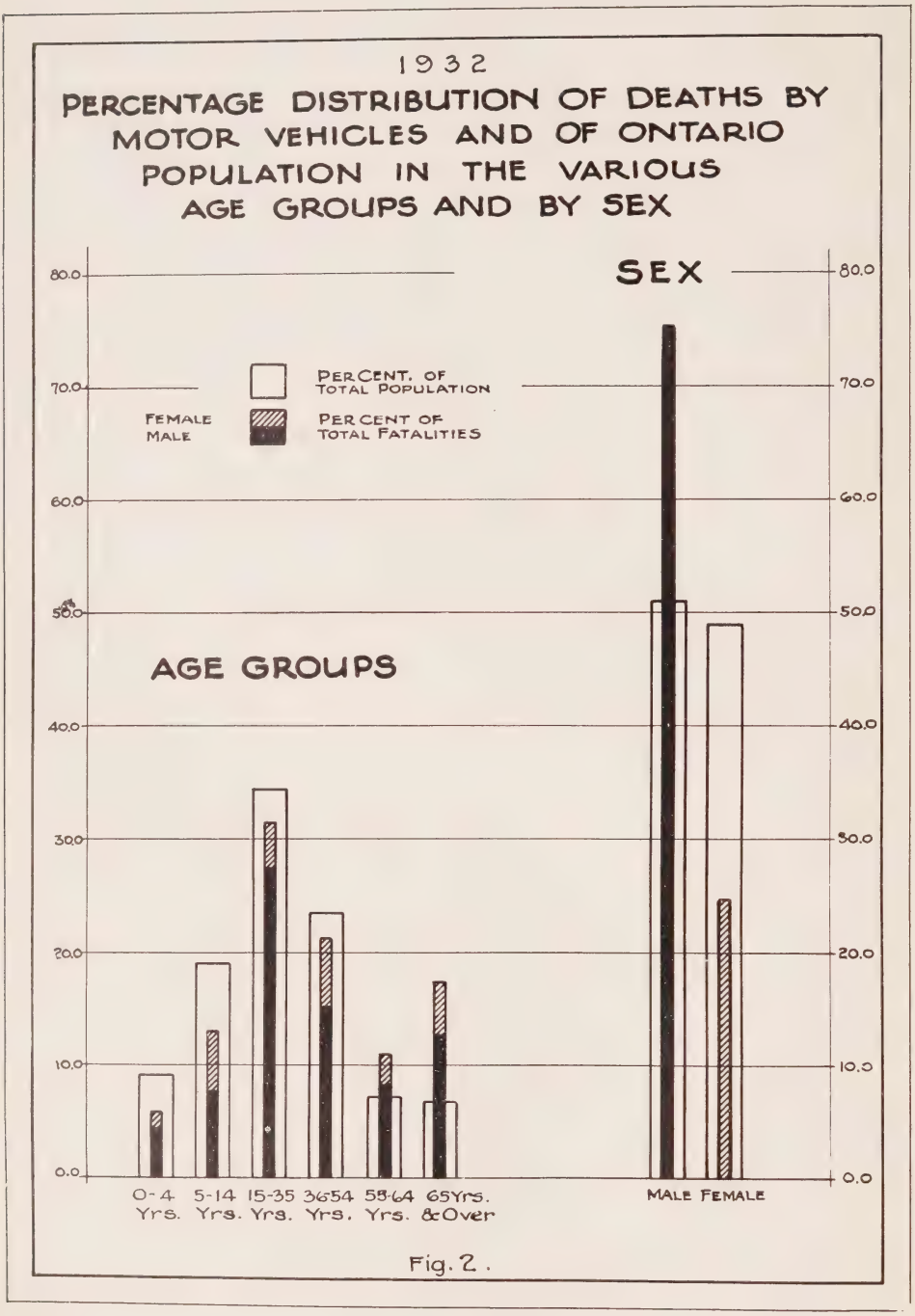

1932
PERCENTAGE DISTRIBUTION OF DEATHS BY MOTOR VEHICLES AND OF ONTARIO POPULATION IN THE VARIOUS AGE GROUPS AND BY SEX
SEX
AGE GROUPS
PER CENT. OF TOTAL POPULATION
PER CENT OF TOTAL FATALITIES
FEMALE
MALE
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
0-4 Yrs.
5-14 Yrs.
15-35 Yrs.
36-54 Yrs.
55-64 Yrs.
65 Yrs. & Over
MALE
FEMALE

Fig. 2.

COMMERCIAL CARS REGISTERED

Tires

Pneumatic	58,209	
Solid	587	
Municipal	1,909	
Ontario Government Dominion Government	642	
		61,347

Gross Weights—Pneumatic Tires

Less than two tons	[illegible]	
Of two tons and up to three tons	15,976	
More than three tons and up to four tons	10,387	
More than four tons and up to five tons	3,922	
More than five tons and up to six tons	1,866	
More than six tons and up to seven tons	1,327	
More than seven tons and up to eight tons	1,430	
More than eight tons and up to nine tons	620	
More than nine tons and up to ten tons	1,406	
More than ten tons and up to eleven tons	....	
More than eleven tons and up to twelve tons	8	
More than twelve tons and up to thirteen tons	....	
More than thirteen tons and up to fourteen tons	5	
More than fourteen tons and up to fifteen tons	25	
		58,209

Gross Weights—Solid Tires

Less than two tons	[illegible]	
Of two tons and up to three tons	6	
More than three tons and up to four tons	[illegible]	
More than four tons and up to five tons	4	
More than five tons and up to six tons	66	
More than six tons and up to seven tons	[illegible]	
More than seven tons and up to eight tons	[illegible]	
More than eight tons and up to nine tons	[illegible]	
More than nine tons and up to ten tons	[illegible]	
More than ten tons and up to eleven tons	[illegible]	
More than eleven tons and up to twelve tons	[illegible]	
Municipal	1,909	
Ontario Government Dominion Government	642	
		61,347

CONVERTIBLE CARS REGISTERED

Convertible vehicles	3,239	
Less than two tons	[illegible]	
Of two tons and up to three tons	[illegible]	
Ontario Government Dominion Government	[illegible]	
		3,239

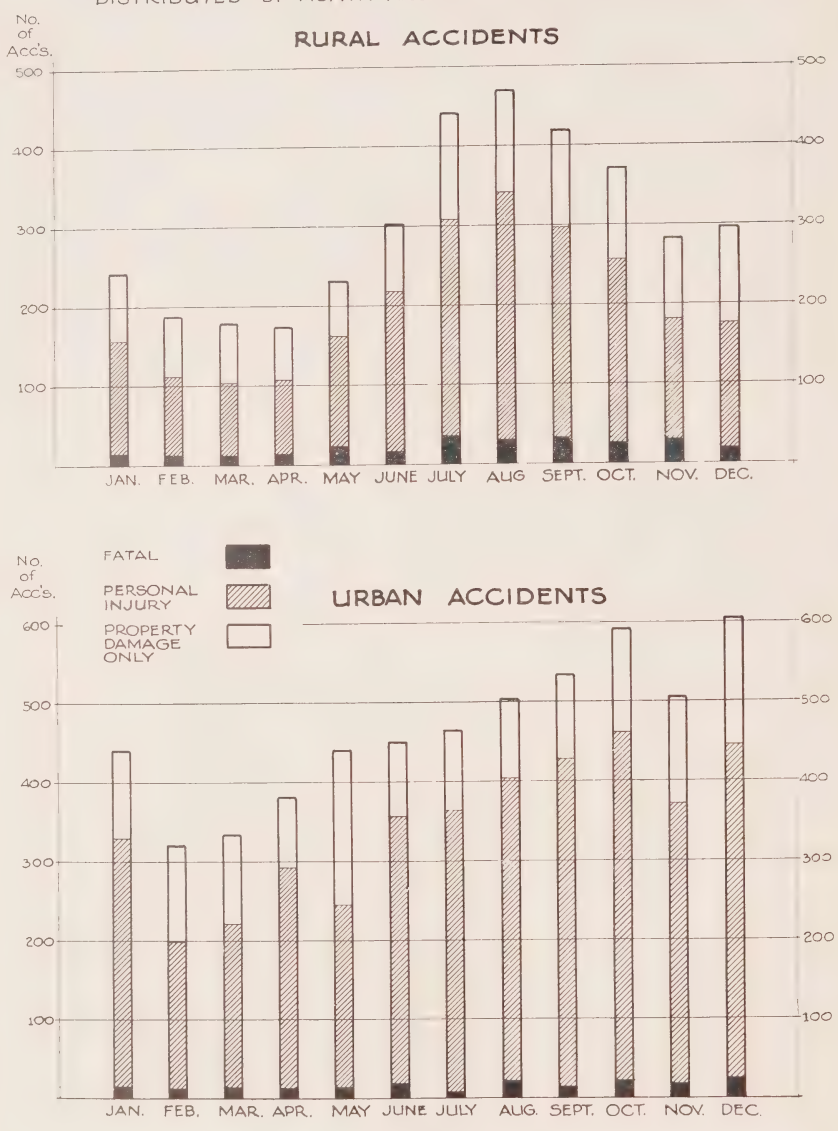

1932
MOTOR VEHICLE ACCIDENTS
DISTRIBUTED BY MONTH AND BY NATURE OF ACCIDENT
RURAL ACCIDENTS
No. of Acc's.
500
400
300
200
100
JAN. FEB. MAR. APR. MAY JUNE JULY AUG SEPT. OCT. NOV. DEC.
FATAL
PERSONAL INJURY
PROPERTY DAMAGE ONLY
URBAN ACCIDENTS
No. of Acc's.
600
500
400
300
200
100
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

Fig. 3

TRAILERS REGISTERED, 1932

Counties		Cities		Total
Algoma	46	Sault Ste. Marie	123	169
Brant	133	Brantford	161	294
Bruce	196			196
Carleton	156	Ottawa	218	374
Dufferin	70			70
Dundas	58			58
Durham	108			108
Elgin	257			257
Essex	556	St. Thomas	69	625
Frontenac	37	Windsor	241	797
Glengarry	14	Kingston	85	99
Grenville	34			34
Grey	148			148
Haldimand	140	Owen Sound	57	197
Haliburton	5			145
Halton	109			109
Hastings	182			182
Huron	371	Belleville	97	468
Kenora	11			11
Kent	376			376
Lambton	388	Chatham	106	494
Lanark	146	Sarnia	50	196
Leeds	109			109
Lennox and Addington	76			76
Lincoln	76			76
Manitoulin	10	St. Catharines	91	167
Middlesex	448			448
Muskoka	56	London	175	623
Nipissing	29			29
Norfolk	268	North Bay	37	305
Northumberland	138			138
Ontario	181			181
Oxford	292	Oshawa	112	404
Parry Sound	26	Woodstock	118	144
Peel	111			111
Perth	235			235
Peterborough	65	Stratford	111	176
Prescott	32	Peterborough	111	176
Prince Edward	97			97
Rainy River	112			112
Renfrew	128			128
Russell	29			29
Simcoe	259			259
Stormont	66			66
Sudbury	23	Sudbury	27	50
Thunder Bay	7	Fort William	33	
		Port Arthur	28	68
Temiskaming	123			123
Victoria	105			105
Waterloo	254	Galt	27	281
		Kitchener	111	365
Welland	159	Niagara Falls	70	
		Welland	38	267
Wellington	173	Guelph	49	222
Wentworth	143	Hamilton	532	675
York	375	Toronto	2,292	2,667
Foreign	91			91
	7,833		5,165	12,998

Trailer Gross Weights

One ton or less	10,556
More than one ton and up to two tons	596
More than two tons and up to three tons	137
More than three tons and up to four tons	138
More than four tons and up to five tons	170

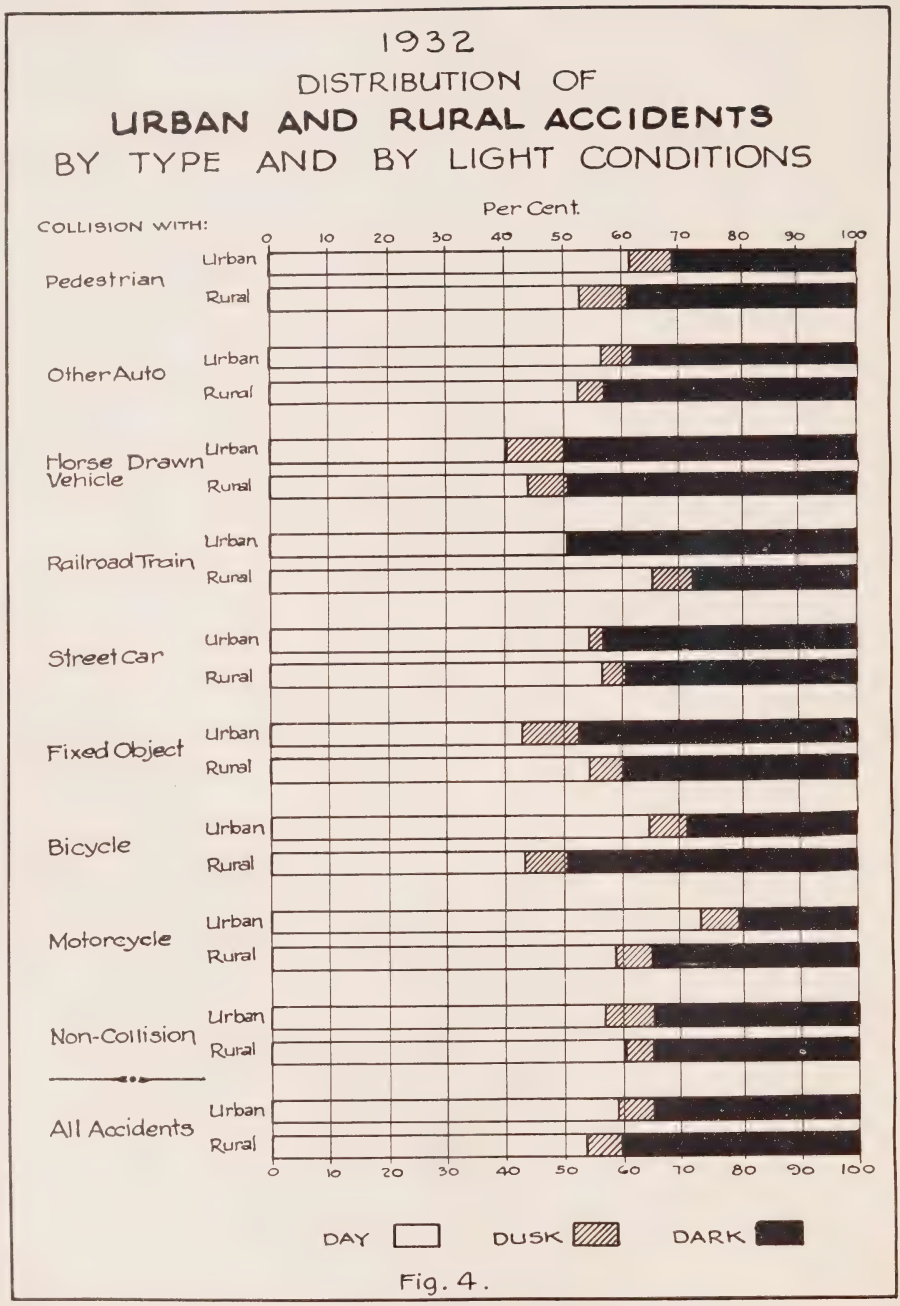

1932
DISTRIBUTION OF
URBAN AND RURAL ACCIDENTS
BY TYPE AND BY LIGHT CONDITIONS
COLLISION WITH:
Per Cent.
0 10 20 30 40 50 60 70 80 90 100
Pedestrian
Other Auto
Horse Drawn Vehicle
Railroad Train
Street Car
Fixed Object
Bicycle
Motorcycle
Non-Collision
All Accidents
Urban
Rural
DAY
DUSK
DARK

Fig. 4.

Trailer Gross Weights—*Continued*

More than five tons and up to six tons	
More than six tons and up to seven tons	204
More than seven tons and up to eight tons	121
More than eight tons and up to nine tons	323
More than nine tons and up to ten tons	6
More than ten tons and up to eleven tons	40
More than eleven tons and up to twelve tons	
More than twelve tons and up to thirteen tons	
More than thirteen tons and up to fourteen tons	
More than fourteen tons and up to fifteen tons	
Municipal	7
Free	279
	52

AUTOMOBILE DEALERS REGISTERED, 1932

Counties		Cities		Total
Algoma	2	Sault Ste. Marie	9	11
Brant	4	Brantford	17	
Bruce	13			
Carleton	14	Ottawa	78	
Dufferin	3			
Dundas	12			
Durham	9			
Elgin	5	St. Thomas	8	13
Essex	16			
Frontenac	2			
Glengarry	3			
Grenville	10			
Grey	13	Owen Sound		
Haldimand	13			
Haliburton				
Halton	11			
Hastings	20	Belleville		
Huron	14			
Kenora	3			
Kent	12	Chatham		
Lambton	9	Sarnia		
Lanark	12			
Leeds	14			
Lennox and Addington	6			
Lincoln	7	St. Catharines		
Manitoulin	1			
Middlesex	6	London		
Muskoka	6			
Nipissing	6	North Bay	7	
Norfolk	10			
Northumberland	10			
Ontario	13	Oshawa	25	
Oxford	17	Woodstock	10	
Parry Sound	6			
Peel				
Perth	14	Stratford	10	
Peterborough				
Prescott				
Prince Edward				
Rainy River				
Renfrew				
Russell				
Simcoe	31			31
Stormont	15			15
Sudbury		Sudbury	13	13
Thunder Bay	4	Fort William	11	
		Port Arthur	5	20
Temiskaming	35			35
Victoria	12			12
Waterloo	7	Galt	7	
		Kitchener	21	35
Welland	8	Niagara Falls	15	
		Welland	14	37

AUTOMOBILE DEALERS REGISTERED, 1932—*Continued*

Counties		Cities		Total
Wellington	12	Guelph	15	27
Wentworth	2	Hamilton	50	52
York	42	Toronto	253	295
Foreign	...		...	...
	546		732	1,278

COMMERCIAL DEALERS REGISTERED, 1932

Counties		Cities		Total
Algoma	...	Sault Ste. Marie	...	...
Brant	...	Brantford	...	...
Bruce	...		...	...
Carleton	...	Ottawa	3	3
Dufferin	...		...	...
Dundas	...		...	...
Durham	...		...	...
Elgin	...	St. Thomas	...	...
Essex	...	Windsor	3	3
Frontenac	...	Kingston	...	...
Glengarry	...		...	...
Grenville	...		...	...
Grey	...	Owen Sound	...	...
Haldimand	...		...	...
Haliburton	...		...	...
Halton	1		...	1
Hastings	...	Belleville	...	...
Huron	...		...	...
Kenora	...		...	...
Kent	...	Chatham	1	1
Lambton	...	Sarnia	...	...
Lanark	...		...	...
Leeds	...		...	...
Lennox and Addington	...		...	...
Lincoln	...	St. Catharines	6	6
Manitoulin	...		...	...
Middlesex	...	London	8	8
Muskoka	...		...	...
Nipissing	...	North Bay	1	1
Norfolk	...		...	...
Northumberland	...		...	...
Ontario	...	Oshawa	...	...
Oxford	1	Woodstock	...	1
Parry Sound	...		...	...
Peel	...		...	...
Perth	...	Stratford	...	...
Peterborough	...	Peterborough	...	...
Prescott	...		...	...
Prince Edward	...		...	...
Rainy River	...		...	...
Renfrew	...		...	...
Russell	...		...	...
Simcoe	...		...	...
Stormont	...		...	...
Sudbury	...	Sudbury	...	...
Thunder Bay	...	Fort William	...	...
		Port Arthur	...	...
Temiskaming	...		...	...
Victoria	...		...	...
Waterloo	...	Galt	...	...
		Kitchener	1	1
Welland	1	Niagara Falls	...	...
		Welland	1	2
Wellington	...	Guelph	...	...
Wentworth	...	Hamilton	15	15
York	1	Toronto	46	47
Foreign	...		...	...
	4		85	89

MOTORCYCLES REGISTERED, 1932

Counties	
Algoma	12
Brant	16
Bruce	13
Carleton	43
Dufferin	11
Dundas	10
Durham	23
Elgin	11
Essex	26
Frontenac	8
Glengarry	10
Grenville	8
Grey	15
Haldimand	10
Haliburton	2
Halton	26
Hastings	29
Huron	37
Kenora	2
Kent	24
Lambton	18
Lanark	17
Leeds	26
Lennox and Addington	10
Lincoln	31
Manitoulin	3
Middlesex	31
Muskoka	18
Nipissing	7
Norfolk	37
Northumberland	12
Ontario	40
Oxford	32
Parry Sound	7
Peel	42
Perth	29
Peterborough	9
Prescott	11
Prince Edward	20
Rainy River	5
Renfrew	25
Russell	21
Simcoe	61
Stormont	40
Sudbury	9
Thunder Bay	8
Temiskaming	61
Victoria	13
Waterloo	62
Welland	52
Wellington	25
Wentworth	56
York	228
Foreign	3
	1,405

Cities		Total
Sault Ste. Marie	13	
Brantford	28	
Ottawa		
St. Thomas	16	
Windsor	59	
Kingston	54	
Owen Sound	5	
Belleville	17	
Chatham		
Sarnia		
St. Catharines		
London		
North Bay		
Oshawa		
Woodstock		
Stratford		
Peterborough		
Sudbury	20	
Fort William	22	
Port Arthur	1	
Galt	13	
Kitchener		
Niagara Falls		
Welland		
Guelph	16	
Hamilton	219	
Toronto	1,522	
	2,683	

DRIVERS' LICENSE REGISTRATIONS, 1932

Classification of Drivers' Licenses

Operators' Licenses—Original	42,328
" " Renewal	443,230
Instruction Permits	50,625
Motorcycle Operators—Original	328
" " Renewal	655
Chauffeurs' Licenses—Original	17,966
" " Renewal	144,203
Total	699,335

Analysis of the operators' renewal applications showed the following distribution by age and sex:

By Sex

Male	362,119	81.7%
Female	81,111	18.3%

By Age Groups

18-24 years	49,199	11.1%
25-40 "	205,659	46.4%
41-54 "	143,163	32.3%
55-64 "	35,458	8.0%
65 years and over	9,751	2.2%
Total	443,230	

MOTOR VEHICLE REGISTRATIONS FOR THE YEARS 1904-1932, INCLUSIVE

Year	Passenger cars	Owned in Ontario	Others	Commercial Vehicles	Two Purpose Vehicles	Motorcycles	Trailers	Public Vehicles		Public Commercial Vehicles	
								Oper.	Licenses	Oper.	Licenses
1904	535	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1905	553	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1906	1,176	517	659	.....	.....	.....	.....	.....	.....	.....	.....
1907	1,530	550	980	.....	.....	.....	.....	.....	.....	.....	.....
1908	1,754	589	1,165	.....	.....	.....	.....	.....	.....	.....	.....
1909	2,452	1,020	1,432	.....	.....	.....	.....	.....	.....	.....	.....
1910	4,230	1,977	2,253	.....	.....	.....	.....	.....	.....	.....	.....
1911	11,339	7,338	4,001	.....	.....	.....	.....	.....	.....	.....	.....
1912	16,268	11,939	4,327	.....	.....	1,754	.....	.....	.....	.....	.....
1913	23,700	17,750	5,950	.....	.....	2,900	.....	.....	.....	.....	.....
1914	31,724	25,308	6,415	.....	.....	3,633	.....	.....	.....	.....	.....
1915	42,346	36,661	5,686	.....	.....	4,174	.....	.....	.....	.....	.....
1916	51,589	50,587	1,002	2,786	.....	4,287	.....	.....	.....	.....	.....
1917	78,861	78,475	386	4,929	.....	5,180	.....	.....	.....	.....	.....
1918	101,845	101,599	246	7,529	.....	5,002	.....	.....	.....	.....	.....
1919	127,860	127,512	348	11,428	.....	5,516	.....	.....	.....	.....	.....
1920	155,861	155,519	342	16,204	.....	5,496	.....	.....	.....	.....	.....
1921	181,978	181,686	292	19,554	.....	4,989	327	.....	.....	.....	.....
1922	210,333	210,008	325	24,164	.....	4,799	463	.....	.....	.....	.....
1923	245,815	245,435	380	28,612	.....	4,325	591	.....	.....	.....	.....
1924	271,341	270,876	465	31,488	.....	3,941	778	50	102	.....	.....
1925	303,736	303,216	520	34,690	.....	3,748	1,058	91	216	.....	.....
1926	343,992	343,586	406	39,012	.....	3,345	1,398	107	384	.....	.....
1927	386,903	386,311	592	43,442	.....	3,159	1,962	103	480	.....	.....
1928	429,426	428,890	536	54,714	.....	3,197	3,281	104	522	367	945
1929	473,222	472,634	588	55,218	8,226	3,541	4,903	80	587	285	1,118
1930	490,906	490,270	636	61,690	5,986	3,924	7,111	95	643	372	1,155
1931	489,713	489,067	646	64,256	4,177	4,070	9,996	90	629	1,977	3,900
1932	462,923	462,598	325	61,347	3,239	4,088	12,998	100	590	1,938	3,397

MOTOR VEHICLES BRANCH

Highways Department

Revenue for the Fiscal Year 1931-1932

	Gross	Deductions	Net
Automobile permits	$4,387,609 00	$97,913 60	$4,289,695 40
Commercial permits	1,856,145 00	12,754 15	1,843,390 85
Automobile dealer permits	25,542 00	20 00	25,522 00
Commercial dealer permits	6,037 00	.....	6,037 00
Motorcycle dealer permits	132 00	.....	132 00
Trailer permits	107,199 00	1,006 50	106,192 50
Two purpose permits	32,208 50	772 60	31,435 90
Chauffeurs	177,296 00	11,687 70	165,608 30
Operators	514,052 50	45,269 90	468,782 60
Motorcycle permits	11,726 50	314 00	11,412 50
Transfers	114,135 00	3,330 20	110,804 80
Garages	15,705 00	25 00	15,680 00
Duplicate cards	7,521 50	50	7,521 00
In transits	5,771 50	466 50	5,305 00
Certificates and searches	116 01	.....	116 01
Fines	72,580 29	170 25	72,410 04
Lists	266 32	.....	266 32
Public vehicles	113,522 72	.....	113,522 72
Public commercial vehicles	88,922 03	596 50	88,325 53
Postage	39 68	.....	39 68
Testing headlights	225 00	.....	225 00
Examination Fees	15,538 00	.....	15,538 00
Incomplete applications	13 50	.....	13 50
	$7,552,304 05	$174,327 40	$7,377,976 65
Express charges paid by agents $68 36			
Rent of typewriters 1,240 00			
Due from agents 21 25			
		1,329 61	
	$7,552,304 05	$175,657 01	$7,376,646 04
1931 Balances paid 21 20			
Bank interest 4 49	.....	.....	25 69
Total	.....	.....	$7,376,672 73

MOTOR VEHICLES BRANCH
Highways Department
Revenue for Fiscal Year 1931-1932

Automobile permits	$4,387,609 00		
Commercial permits	1,856,145 00		
Automobile dealer permits	25,542 00		
Commercial dealer permits	6,037 00		
Motorcycle dealer permits	132 00		
Trailer permits	107,199 00		
two purpose permits	32,208 50		
Chauffeurs	177,296 00		
Operators	514,052 50		
Motorcycle permits	11,726 50		
Transfers	114,135 00		
Garages	15,705 00		
Duplicate cards	7,521 50		
In transits	5,771 50		
Certificates and searches	116 01		
Fines	72,580 29		
Lists	266 32		
Public vehicles	113,522 72		
Public commercial vehicles	88,922 03		
Postage	39 68		
Testing headlights	225 00		
Examination fees	15,538 00		
Incomplete applications	13 50		
		$7,552,304 05	
Less:			
Commissions deducted by agents	$172,032 15		
Express charges paid by agents	68 36		
Rent of Typewriters	1,240 00		
Cheques charged back by Provincial Treasurer	82 00		
Refunds deducted by Provincial Treasurer	2,213 25		
Due from agents, 1932	21 25		
		175,657 01	
			$7,376,647 04
1931 balances paid by agents	21 20		
Bank interest	4 49		
			25 69
			$7,376,672 73

ITEMIZED STATEMENT OF RECEIPTS FOR FISCAL YEAR 1931-32

PASSENGER CARS—1931 FEES

29 at $ 5.00		$145 00
1,012 at 2.50		2,530 00
20 at 10.00		200 00
823 at 5.00		4,115 00
2 at 20.00		40 00
56 at 10.00		560 00
1 at 7.50, steam		7 50

1932 FEES

241,181 at $7.00		$1,688,267 00
5,799 at 3.50		20,296 50
192,382 at 12.00		2,308,584 00
4,021 at 6.00		24,126 00
16,185 at 20.00		323,700 00
751 at 10.00		7,510 00
97 at 30.00		2,910 00
10 at 15.00		150 00
28 at 40.00		1,120 00
3 at 20.00		60 00
9 at 20.00, electric		180 00
12 at 20.00, steam		240 00
5 at 10.00, steam		50 00
1,346 at 2.00, new sets		2,692 00
21 new sets. No. fee.		
655 free.		
(464,448) Balance of fees		126 00
		$4,387,609 00

COMMERCIALS—1931 FEES

Pneumatic Tires

198 at	$4.50	$891 00
176 at	7.50	1,320 00
160 at	12.00	1,920 00
76 at	20.00	1,520 00
16 at	27.00	432 00
12 at	31.50	378 00
13 at	36.00	468 00
2 at	45.00	90 00
6 at	50.00	300 00

Solid Tires

2 at	$7.00	$14 00
1 at	12.00	12 00
3 at	30.00	90 00
2 at	40.00	80 00

1932 FEES

Pneumatic Tires

20,027 at	$10.00	$200,270 00
966 at	5.00	4,830 00
14,831 at	24.00	355,944 00
928 at	12.00	11,136 00
9,995 at	36.00	359,820 00
297 at	18.00	5,346 00
3,739 at	55.00	205,645 00
141 at	27.50	3,877 50
1,758 at	72.00	126,576 00
86 at	36.00	3,096 00
1,274 at	84.00	107,016 00
43 at	42.00	1,806 00
1,347 at	96.00	129,312 00
68 at	48.00	3,264 00
600 at	117.00	70,200 00
15 at	58.50	877 50
1,371 at	130.00	178,230 00
26 at	65.00	1,690 00
8 at	180.00	1,440 00
5 at	210.00	1,050 00
24 at	225.00	5,400 00
1 at	112.50	112 50

Solid Tires

48 at	$16.00	$768 00
59 at	33.00	1,947 00
7 at	16.50	115 50
31 at	48.00	1,488 00
1 at	24.00	24 00
39 at	70.00	2,730 00
6 at	35.00	210 00
62 at	90.00	5,580 00
1 at	45.00	45 00
59 at	105.00	6,195 00
1 at	52.50	52 50
163 at	120.00	19,560 00
2 at	60.00	120 00
39 at	144.00	5,616 00
1 at	72.00	72 00
36 at	160.00	5,760 00
2 at	198.00	396 00
14 at	216.00	3,024 00
3 at	108.00	324 00
1,922 at	2.00, municipal	3,844 00
982 at	2.00, new sets	1,964 00
4 new sets. No fee.		
574 free.		
(62,273) Increase capacity and balance fees		11,856 50
		$1,856,145 00

"M" DEALERS

	1,273 at $20.00	$25,460 00	
	5 at 10.00	50 00	
	16 at 2.00, new sets	32 00	
	1 new set. No fee.		
(1,295)			$25,542 00

"M.T." DEALERS

	7 at $24.00	$168 00	
	33 at 36.00	1,188 00	
	7 at 55.00	385 00	
	5 at 72.00	360 00	
	8 at 84.00	672 00	
	14 at 96.00	1,344 00	
	2 at 117.00	234 00	
	9 at 130.00	1,170 00	
	1 at 165.00	165 00	
	1 at 225.00	225 00	
	2 at 60.00, trailers	120 00	
(92)	3 at 2.00 new sets	6 00	
			6,037 00

"M.C." DEALERS

(22)	22 at $6.00	$132 00	
			$132 00

TRAILERS

1931 Fees

	174 at $1.50	$261 00	
	20 at 3.00	60 00	
	6 at 7.50	45 00	
	3 at 10.00	30 00	
	3 at 12.50	37 50	
	3 at 15.00	45 00	
	3 at 21.00	63 00	
	4 at 24.00	96 00	
	1 at 27.00	27 00	
	2 at 30.00	60 00	

1932 Fees

	8,701 at $3.00	26,103 00	
	1,533 at 1.50	2,299 50	
	616 at 8.00	4,928 00	
	86 at 4.00	344 00	
	218 at 18.00	3,924 00	
	13 at 9.00	117 00	
	165 at 28.00	4,620 00	
	19 at 14.00	266 00	
	260 at 45.00	11,700 00	
	15 at 22.50	337 50	
	186 at 60.00	11,160 00	
	17 at 30.00	510 00	
	111 at 70.00	7,770 00	
	7 at 35.00	245 00	
	310 at 80.00	24,800 00	
	11 at 40.00	440 00	
	5 at 99.00	495 00	
	35 at 110.00	3,850 00	
	4 at 55.00	220 00	
	7 at 195.00	1,365 00	
	280 at 2.00, municipal	560 00	
	47 at 2.00, new sets	94 00	
	1 new set. No. fee.		
	53 free.		
(12,919)	Increase capacity and balance fees	326 50	
			$107,199 00

TWO-PURPOSE

1931 Fees

17 at	$4.50	$76 50	

1932 Fees

3,061 at	$10.00	[illegible]	
145 at	5.00	725 00	
3 at	24.00	72 00	
172 at	2.00, new sets	344 00	
8 free.			
(3,406)	Increase capacity and balance fees	381 00	
			$32,208 50

CHAUFFEURS

14,040 at	$2.00, originals	$28,080 00	
4,319 at	1.00, originals	4,319 00	
143,654 at	1.00, renewals	143,654 00	
1 free original.			
44 free renewals.			
(162,058)	Previous year fees	1,243 00	
			$177,296 [illegible]

OPERATORS

42,924 at	$1.00, originals	$42,924 00	
442,396 at	1.00, renewals	442,396 00	
50,397 at	.50, instruction	25,198 50	
326 at	1.00, "M.C." operator original	326 00	
655 at	1.00, "M.C." operator renewal	655 00	
	Operator's previous year's fees	2,547 00	
	"M.C." operator's previous year's fees	6 00	
(536,698)			[illegible]

MOTORCYCLES

3,690 at	$3.00	[illegible]	
231 at	1.50	346 50	
30 at	1.00, new sets	30 00	
140 at	2.00, municipal	280 00	
30 free.			
1 new set.	No fee.		
(4,122)			$11,7[illegible]

TRANSFERS

52,328 at	$2.00, passenger	$104,656 00	
4,214 at	2.00, commercial	8,428 00	
597 at	1.00, motorcycle	597 00	
137 at	2.00, two-purpose	274 00	
80 at	2.00, trailers	160 00	
1 at	2.00, Class "A" Garage	2 00	
1 at	2.00, Class "B" Garage	2 00	
8 at	2.00, "M" Dealer	16 00	
(57,366)			$114,135 00

GARAGES

Class "A"

1,235 at	$10.00	$12,350 00	
6 at	5.00	30 00	

Class "B"

662 at	$5.00	3,310 00	
6 at	2.50	15 00	
			$15,705 00
(1,909)			

DUPLICATE CARDS

1932 Fees				
2,954 at	$0.50, passenger	$1,477 00		
384 at	.50, commercial	192 00		
46 at	.50, motorcycles	23 00		
13 at	.50, two-purpose	6 50		
18 at	.50, trailers	9 00		
633 at	.50, passenger transfers	316 50		
39 at	.50, commercial transfers	19 50		
5 at	.50, "M.C." transfers	2 50		
1 at	.50, two-purpose	50		
2 at	.50, "M" Dealer	1 00		
218 at	.50, chauffeur original	109 00		
1,738 at	.50, chauffeur renewals	869 00		
308 at	.50 operator originals	154 00		
2,727 at	.50, operator renewals	1,363 50		
3 at	.50, "M.C." operator original	1 50		
7 at	.50, "M.C." operator renewal	3 50		
(9,096)				
1930 Fees				
114 at	$0.50	57 00		
1931 Fees				
5,833 at	.50	2,916 50		
				$7,521 50

IN TRANSITS

11,543 at	$0.50	$5,771 50		
				$5,771 50

CERTIFICATES AND SEARCHES

92 at	$0.25	$23 00		
1 at	.30	30		
1 at	.40	40		
2 at	.42	84		
60 at	.50	30 00		
26 at	.75	19 50		
1 at	.90	90		
1 at	.96	96		
23 at	1.00	23 00		
1 at	1.11	1 11		
4 at	1.25	5 00		
4 at	1.50	6 00		
2 at	2.50	5 00		
(218)				$116 01
Fines				72,580 29
Lists				266 32
Public vehicles				113,522 72
Public commercial vehicles				88,922 03
Postage				39 68
Testing headlights				225 00
Examination fees				15,538 00
Incomplete applications				13 50
Commissions deducted by agents				172,032 15
Rent for typewriters paid by agents				1,240 00
Express and cartage charges paid by agents				68 36
Due from agents				21 25
Refunds				2,213 25
Cheques charged back N.S.F.:				
Superior Garage		$5 00		
E. Beauschene		30 00		
Victory Garage		37 00		
J. Glenn		10 00		
				82 00
Deposited with Treasury as shown by Treasurer's statement				7,376,672 73
				$7,552,329 74
1931 balances paid by agents		$21 20		
Bank interest		4 49		
				25 69
		$7,552,304 05		$7,552,304 05

STATEMENT OF REVENUE COLLECTED DURING THE FISCAL YEARS 1904-1932, INCLUSIVE

Year	Receipts
1904	$1,282 00
1905	3,096 65
1906	5,523 15
1907	8,098 50
1908	10,007 75
1909	12,418 75
1910	24,394 01
1911	50,831 22
1912	73,255 96
1913	105,558 95
1914	149,210 45
1915	334,759 78
1916	639,987 09
1917	930,753 00
1918	1,214,093 87
1919	1,580,105 61
1920	1,990,833 38
1921	2,945,360 36
1922	3,477,430 13
1923	4,296,009 32
1924	4,785,235 13
1925	5,638,993 38
1926	6,415,713 05
1927	5,964,863 63
1928	6,470,151 79
1929	7,848,448 58
1930	5,547,254 58
1931	5,610,442 80
1932	[illegible]

REPORT OF THE FINANCIAL RESPONSIBILITY DIVISION, MOTOR VEHICLES BRANCH, DEPARTMENT OF HIGHWAYS, ONTARIO, 1932

When the financial responsibility provisions of The Highway Traffic Act were enacted in 1930 it was claimed that they represented the most advanced form of highway safety legislation in operation at that time. During the first sixteen months of operation they gave ample indication of effectiveness; and, during the year just past, they operated to still further weed from among the drivers of the Province, those reckless, irresponsible and dangerous individuals who, experience has shown, are responsible for a large number of the tragedies on our streets and highways, but who constitute only a small proportion of the drivers of the Province.

There are now eight provinces of Canada and twenty-two states of the United States where similar legislation is in force. Ontario was among the pioneers in the adoption of these provisions and the success achieved here and in other jurisdictions has led to this widespread acceptance.

In 1932, there were 3,777 suspensions imposed in accordance with the requirements of the Financial Responsibility Law. These suspensions affected 2,982 individuals; 795 having suffered a second or subsequent suspension because of failure to maintain the necessary proof of financial responsibility with the Branch after the original suspension had been lifted. During the year, 1,362 persons regained the right to own and operate motor vehicles in Ontario by complying with the requirements of the Act as to the filing of proof of financial responsibility with the Branch.

In the twenty-eight months during which the Act had been in operation at the close of the year, 8,461 suspensions affecting 7,386 individuals had been put into effect, and 3,377 suspensions had been lifted upon the filing of proof of financial responsibility, so that there remained in force 5,084 suspensions on December 31st, 1932.

In other words, the motorists and pedestrians of the Province were safer to the extent that over five thousand persons who by deed or omission had proven themselves dangerous or irresponsible had been driven from the streets and highways. Five thousand drivers had learned that operating a motor vehicle on the public roads was not a right—but a privilege which depended entirely upon satisfactory conduct while operating and strict compliance with the laws. One hundred and thirty-two motorists had found that they could not avoid the payment of damages to victims who had suffered as a result of their negligence, callousness or carelessness. Two thousand, six hundred and seventy-five had discovered that they could not flout the law regarding driving licenses. In all 7,386 individuals had learned that the Financial Responsibility Law had teeth; that it demanded safe, sane, lawful operation of motor vehicles and that the financially irresponsible individual could not drive a car without seriously endangering his right to operate again.

The following table shows the number of suspensions imposed under the various provisions of the Act during 1932 and during the first twenty-eight months of operation of the Act:

Cause of Suspension	Calendar Year 1932	Twenty-eight Months Ending Dec. 31st, 1932
Reckless driving, resulting in personal injury or property damage	954	2,396
Speeding, resulting in personal injury or property damage	28	220
Racing	4	9
Driving without license	1,243	2,675
Criminal negligence	40	88
Failure to return to the scene of accident	146	396
Driving while intoxicated	422	1,287
Other offences	65	185
Failure to satisfy judgment	80	132
Policy cancellation	795	1,073
Totals	3,777	8,461

The provision of the law relating to convictions of Ontario drivers in other jurisdictions, and to the suspension of non-resident drivers for offences in Ontario, is a reciprocal feature not included in the laws of all the states and provinces. As a result, a cursory examination of the statistics would give the impression, perhaps mistaken, that Ontario drivers are apparently far more law-abiding when away from home than are those drivers of other states and provinces who visit Ontario. In 1932, only three Ontario licenses were suspended because of offences committed outside of Ontario while 261 non-residents suffered suspension of licenses for convictions in Ontario, and notification of the suspension was forwarded to the Registrar of Motor Vehicles or other responsible official of their home jurisdictions. In those places where this reciprocal

feature is operative, these suspensions have the same effect as they would if the offence had been committed in the state of residence of the party so penalized.

During the year, eighty-three persons suffered suspension of driving and vehicle licenses because of failure to satisfy judgments arising out of damage claims [illegible]. This matter of the payment of damages is one of the important features of the Act and is, unfortunately, one which least discloses its workings by the figures of those suspended. Indeed, if the figures prove anything they show by their very smallness that the Act is operating successfully. They indicate that in only eighty cases during the year has a victim been unable to secure satisfaction for damages suffered as the result of a motor vehicle accident because of the failure of the party at fault to pay a judgment. Correspondence throughout the year has shown that in many cases judgments are paid upon the threat of the judgment creditor's solicitor to report non-payment to the Registrar, and that only a very few motorists are willing to jeopardize their driving rights by refusing to make satisfactory arrangements for the settlement of damage claims.

A clause in the Ontario Act permits the recognition of certificates of unauthorized insurers (i.e., insurance companies not authorized to do business in Ontario) as proof of financial responsibility of non-residents of this Province, provided the insurer undertakes to recognize the judgment of any Ontario court in any case in which it or its insured may be involved. This provision is a great deal wider in its scope than similar provisions in any other jurisdictions. It was designed to enable Ontario victims of non-resident motorists to collect damages for injuries through the courts of this Province and to eliminate the need of bringing suit in a court in the home state of the insurer or its insured. While it extends unusual recognition to these unauthorized insurers, it has already proven its value and in several cases, Ontario residents have been enabled to collect damages in the same way they would proceed against a resident or authorized insurer. In more than one instance when insurers were prepared to disregard the judgments of Ontario courts, the judgments were paid without further dispute as soon as the evidence of the insurers acceptance of these statutory conditions was produced. There can be no doubt that this clause is operating, and will continue to operate, to save Ontario victims of non-resident motorists much trouble and enormous legal costs by confining the suits for recovery of damages to Ontario courts only.

TABLE OF CONTENTS

FOREWORD

In an effort to curtail the number of motor vehicle accidents involving each year, hundreds of deaths, thousands of injuries and economic losses of millions of dollars, the Motor Vehicles Branch has, for many years, sponsored publicity and educational campaigns. The enactment of the Accident Reporting Law, in September 1930, was, in effect, an expression of the growing knowledge that accidents do not "just happen" but, rather, that they have definite causes which in many cases may be located and remedied. The aim in gathering statistics of accidents, drivers involved, persons injured and property damage and in interpreting the circumstances and results is to provide information that may be not only of educational value but in addition may serve a guide for the improvement of vehicles and highways, to suggest and to measure the effectiveness of regulations for the promotion of greater safety, and, finally, to augment the work of law enforcement by the compilation of drivers' records.

Widespread efforts to make people aware of the seriousness of the accident situation and to educate them to the need of safe driving and walking practices were carried on throughout the year by the use of outdoor and newspaper advertising; by accident bulletins to the newspapers and to interested organizations and individuals. A series of twenty-six radio addresses were delivered over Station CKGW by men prominent in public life. Material and speeches were also prepared for a number of motor clubs which assisted in the safety campaign. In an effort to promote greater protection for children, seven outlines for safety lessons were prepared, and were distributed to the teachers of the public and separate schools of the Province. There can be little doubt that these efforts were responsible, to some degree, for the improvement noted in the accident record during the year.

The accident problem is largely one of controlling human conduct, and the most methods of approaching this problem in an effort to promote greater highway safety would appear to be (1) stronger and more strict enforcement and more severe punishment for violations of the traffic laws and regulations; and (2) a continued educational campaign to teach people to avoid those conditions that lead to accidents.

Unfortunately, in dealing with drivers, the problem is not entirely one of removing from the highways a small group of very dangerous individuals who have frequently been implicated in accidents. If this were the only angle to be considered, the method of approach would be comparatively clear. Actually, the difficulty of solution depends on the fact that almost all drivers fail, at some time, to observe the common-sense rules of the road and of safety and thereby leave themselves open to the possibility of accident. The need for educating these actions or attitudes are dangerous, and the inexperienced drivers, cannot be overlooked. Education is also needed for pedestrians, particularly adults, who are slow in adjusting themselves to the conditions brought about by the intensive and extensive growth in the use of motor vehicles. Education of juveniles, also, must be continued if any reduction in the waste of life through accidents is to be brought about.

The problem involves factors of an individual and personal nature and it is extremely difficult for any single organization to correct the local conditions or habits of individuals by means of a province-wide campaign. There is need for united effort by local organizations and the situation offers to service clubs and church organizations a splendid opportunity to forward the welfare of their members and of the citizens of their communities. The Motor Vehicles Branch is prepared to co-operate in any such local campaign either by supplying information or materials for speeches or for local publications, and in some instances may be able to provide qualified lecturers to present the material at club meetings or safety rallies.

The press of the Province is deserving of great thanks and appreciation for the unstinted efforts put forth to place the subject of highway accidents before the public and for the publicity given to bulletins and other material released by the Motor Vehicles Branch. Radio stations at Toronto, Ottawa, Chatham and Windsor also co-operated splendidly, and many hours of valuable broadcast time was allotted, without charge, to speakers of the Branch or of allied organizations.

The statistics shown on the following pages are presented in fulfillment of Section 90 of The Highway Traffic Act and with the aim of providing a graphic view of the motor vehicle accident situation in Ontario during 1932. When compared with the figures for 1931, it will be seen that 1932 showed decreases and increases in the more important items, as follows:

Decreases in:
- Number of drivers killed;
- Number of passengers killed;
- Number of pedestrians killed;
- Number of motorcycle passengers killed;
- Number of motorcycle drivers killed;

Number of persons killed;
Number of persons injured;
Number of children killed;
Number of adults killed;
Number of persons killed in proportion to motor vehicles registered;
Number of persons killed in proportion to miles driven;
Number of persons killed in proportion to population;
Amount of property damage;
Number of urban accidents.

Increases in:
Number of rural accidents;
Number of bicyclists killed;
Number of pedestrians in rural accidents.

TABLE No. 1—NUMBER OF ACCIDENTS, FATALITIES, PERSONS INJURED, AND DAMAGE ON URBAN* AND ON RURAL ROADS, BY TYPE OF ACCIDENT

Collision With:	Accidents		Fatalities		Persons Injured		Amount of Property Damage	
	On Urban Streets	On Rural Roads	On Urban Streets	On Rural Roads	On Urban Streets	On Rural Roads	On Urban Streets	On Rural Roads
Pedestrian	2,362	464	139	91	2,334	416	$4,853	$4,675
Other automobile	1,910	1,645	13	56	1,211	1,585	267,564	363,804
Horse-drawn vehicle	102	145	1	6	68	107	9,495	17,213
Railroad train	57	61	11	41	38	60	13,580	20,775
Street car	206	23	7	4	123	22	28,696	6,472
Other vehicles	1	17	.....	1	.....	20	64	2,800
Fixed object	220	376	5	34	170	377	31,095	72,508
Bicycle	497	99	10	18	501	85	2,996	1,854
Motorcycle	144	46	6	5	150	46	6,620	3,626
Non-collision	57	646	4	44	74	798	4,729	107,603
Miscellaneous	15	78	3	3	10	36	1,410	22,078
Totals	5,571	3,600	199	303	4,679	3,552	$371,102	$623,408

Attention is drawn by the above table to the variation in the results of an analysis of urban and of rural accidents, and, also, of fatal accidents and all accidents.

It can be seen that while most reported accidents happened in the urban centres, fatalities and property damage from motor vehicle accidents were comparatively much higher on the rural roads. The most obvious explanation of these results is that the generally lower rates of speed prevailing on the urban streets make accidents less severe. The large number of collisions with pedestrians in these centres swells the total of injuries but the amount of property damage from these accidents is negligible.

Over 42 per cent. (42.4 %) of the urban accidents were collisions with pedestrians, and 69.9 per cent. of the urban deaths by motor vehicles were the result of this type of collision. On the rural roads, 12.9 per cent. of the accidents were of this type and they caused 30 per cent. of the deaths on these roads. In view of their seriousness from the standpoint of fatal injuries, it is rather surprising to learn that only 1.3 per cent. of the property damage from all urban accidents and .7 per cent. resulting from all rural accidents, were the consequence of this type of collision.

Collisions with railroad trains comprised a very small part (1.7 %) of the rural accident total but resulted in 13.5 per cent. of the fatalities on these roads. There were 41 persons killed in the 61 accidents reported.

Of the non-fatal injuries due to accidents on the urban streets, 49.9 per cent. were the result of pedestrian accidents and 25.9 per cent. were the consequence of collision between motor vehicles.

More than 72 per cent. of the property damage from urban accidents and 58.4 per cent. of rural total were the result of collisions between motor vehicles.

On the rural roads, there was one death for every 12 accidents reported, while on the urban streets the proportion was 1 to 28.

*Accidents which occur within the limits of incorporated cities, towns and villages. Rural accidents include those which happen on the King's highways, county roads and township roads. As many so-called rural roads actually present the same traffic conditions as urban streets, these divisions are not extremely sharp.

TABLE No. 2—MOTOR VEHICLE ACCIDENTS RESULTING IN DEATHS, IN INJURIES AND IN PROPERTY DAMAGE ONLY, BY TYPES

Motor Vehicle Collision with	Number of Accidents	Per cent of Total	Number of Fatal Accidents	Per cent of Total	Number of Personal Injury Accidents	Per cent of Total	Number of Property Damage Only	Per cent of Total
Pedestrian	2,826	30.8	226	49.0	2,600	42.1	.....	.....
Other auto	3,555	38.7	60	13.0	1,661	26.9	1,834	72.55
Horse-drawn	247	2.7	7	1.5	141	2.3	99	3.92
Railroad train	118	1.3	35	7.6	53	.8	30	1.19
Street car	229	2.5	11	2.4	105	1.7	113	4.47
Other vehicles	18	.2	1	.2	11	.2	6	.24
Fixed object	596	6.5	34	7.4	346	5.6	216	8.54
Bicycle	596	6.5	28	6.1	567	9.2	1	.04
Motorcycle	190	2.1	9	2.0	170	2.7	11	.43
Non-collision	703	7.7	44	9.5	489	7.9	170	6.72
Miscellaneous	93	1.0	6	1.3	39	.6	48	1.90
Total	9,171	100.0	461	100.0	6,182	100.0	2,528	100.00

This table discloses the fact that out of every hundred accidents, approximately five cost one or more lives, sixty-seven resulted in injury to persons, while twenty-eight caused damage to property only.

It will be observed that pedestrian and railroad accidents are far the most serious in results, approximately one out of every twelve pedestrian accidents causing a fatality and two out of every seven railroad accidents taking human life. Of the other types non-collision and collision with fixed objects were also of a more serious nature, the percentage of Fatal accidents in each class, exceeding the percentage of All accidents. Collisions with pedestrians and collisions between motor vehicles remain, however, the most important classifications when number of accidents and victims are considered and not percentages.

TABLE No. 3—NUMBER OF MOTOR VEHICLE FATALITIES, BY TYPES OF ACCIDENT AND BY AGE GROUPS

	All Ages		0–4		5–14		15–35		36–54		55–64			
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Collision with:														
Pedestrian	230	45.8	24	80.0	50	76.9	27	17.1	42	39.3	24	43.6	63	72
Other motor vehicle	69	13.7	1	3.3	4	6.2	34	21.6	15	14.0	7	12.7	8	9.2
Horse-drawn vehicle	7	1.4	....	.....	.....	.....	4	2.5	1	.9	1	1.8	1	1.1
Railroad train	52	10.3	1	3.3	5	7.7	16	10.1	18	16.5	8	14.6	4	4.6
Street car	11	2.2	....	.....	.....	.....	3	1.9	7	6.5	1	1.8	....	.....
Other vehicles	1	.2	.....	.....	.....	.....	1	.6	.....	.....	.....	.....	.....	.....
Fixed object	39	7.8	4	13.4	1	1.5	22	13.9	3	2.8	4	7.3	5	5.7
Bicycle	28	5.6	....	.....	4	6.2	12	7.6	8	7.5	3	5.5	1	1.2
Motorcycle	11	2.2	....	.....	.....	.....	10	6.3	....	.....	1	1.8	....	.....
Non-collision	48	9.6	....	.....	1	1.5	27	17.1	11	10.3	4	7.3	5	5.7
Miscellaneous	6	1.2	....	.....	.....	.....	2	1.3	2	1.9	2	3.6	....	.....
Total	502	100.0	30	100.0	65	100.0	158	100.0	107	100.0	55	100.0	87	100.0

NUMBER OF MOTOR VEHICLE FATALITIES BY AGE GROUPS OF VICTIMS

All Ages		0–4		5–14		15–35		36–54		55–64		65 and Over	
No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
502	100.0	30	6.0	65	12.9	158	31.5	107	21.3	55	11.0	87	17.3

In the above table it is shown that of the 502 persons killed by motor vehicles during 1932, 407 or 81.1 per cent. were over 15 years of age. Almost 46 per cent. of all killed were pedestrians and of these it can be seen that the greatest sufferers were the young and the aged; 32.1 per cent. were under 15 years old, and 37.8 per cent. were over 54 years of age.

Graph No. 2 shows the proportion of deaths by motor vehicles in the various age groups and the proportion of total Ontario population in these age groups. This graph clearly indicates the seriousness of the situation as it affects older persons; the deaths among those over 55 years of age being far in excess, proportionally, of the population in that age class. The preponderance of male sufferers is also indicated.

The fact that 74 of the 95 children (under 15 years of age) killed were pedestrians deserves the attention of every parent and of every teacher, suggesting, as it does, that the need for the teaching of safe habits in the home and school cannot be over-emphasized. The value of such teaching has been reflected for a number of years by a decline in the proportion of child deaths. Again, in 1932, the record of the children was better than that of adults, in that child deaths decreased 14.5 per cent. from 1931 whereas the number of adult deaths was only 11.5 per cent. less.

But there is something else that grown-ups might well consider. Seventeen children were killed while occupying cars driven by their elders, which is proof, indeed, that the child's inherent trustfulness of older persons is often undeserved.

Since difficulty is frequently found in accurately classifying the victims under the types of accident, the following table shows victims correctly classified; and a comparison is also made with the number killed during 1931:

CLASSIFICATION OF VICTIMS FATALLY INJURED

	1931	1932	Increase or Decrease
Drivers	122	100	22, decrease
Passengers	152	125	27, decrease
Pedestrians	255	230	25, decrease
Others (persons in horse-drawn vehicles, etc.)	15	8	7, decrease
Bicyclists	5	27	22, increase
Motorcycle drivers	18	10	8, decrease
Motorcycle passengers	4	2	2, decrease
Total	571	502	69 (12.1%) dec.

TABLE No. 4—NUMBER OF VICTIMS KILLED, BY AGE GROUP AND BY SEX

Age	Total	Fatalities—Sex			
		Male		Female	
		Number	Per cent.	Number	Per cent.
0–4	30	22	73.3	8	26.7
5–14	65	38	58.4	27	41.5
15–35	158	137	86.7	21	13.3
36–54	107	76	71.3	31	28.7
55–64	55	41	74.1	14	25.9
55 and over	87	64	73.5	23	26.4
Total	502	378	75.3	124	24.7

This study of the male and female victims of motor accidents in the various age classes shows the male, in each group, to be the greatest sufferer. While one is justified in assuming that men and boys are, as a class, subjected to the hazards of traffic to a greater degree than are women, it is doubtful if the 3 male deaths to 1 female death could be accounted for by this reasoning.

Graph No. 2 has been prepared to show the proportion of total population and of total deaths in each age group and by sex.

TABLE No. 5—NUMBER OF PERSONS INJURED, BY TYPE OF ACCIDENT AND BY AGE GROUP

	All Ages		0-4		5-14		15-35		36-54		55-64		65 and Over		Not Stated	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Collision with:																
Pedestrian	2,750	33.4	321	76.6	1,014	73.1	464	15.4	390	24.2	160	34.9	196	56.5	205	20.7
Other motor vehicle	2,796	34.0	74	17.7	162	11.7	1,229	40.7	650	40.3	187	40.8	86	24.8	408	41.4
Horse-drawn vehicle	175	2.1	...	....	2	.1	59	1.9	58	3.6	16	3.5	12	3.4	28	2.8
Railway train	98	1.2	...	....	10	.7	48	1.6	18	1.1	5	1.0	1	.3	16	1.6
Street car	145	1.8	5	1.2	7	.5	52	1.7	54	3.4	5	1.0	2	.6	20	2.0
Other vehicles	20	.2	...	....	...	....	5	.2	9	.6	1	.2	1	.3	4	.4
Fixed object	547	6.6	8	1.9	17	1.2	308	10.2	115	7.1	22	4.8	12	3.4	65	6.6
Bicycle	586	7.1	2	.5	127	9.2	293	9.7	81	5.0	16	3.5	7	2.0	60	6.1
Motorcycle	196	2.4	...	....	6	.4	156	5.2	11	.7	1	.2	1	.3	21	2.1
Non-collision	872	10.6	6	1.4	40	2.9	380	12.6	215	13.3	43	9.4	28	8.1	160	16.2
Miscellaneous	46	.6	3	.7	3	.2	24	.8	11	.7	3	.7	1	.3	1	.1
Total	8,231	100.0	419	100.0	1,388	100.0	3,018	100.0	1,642	100.0	459	100.0	347	100.0	988	100.0

NUMBER OF PERSONS INJURED, BY AGE GROUP

All Ages		0–4		5–14		15–35		36–54		55–64		65 and Over		Not Stated	
No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
8,231	100.0	419	5.1	1,388	16.9	3,018	36.7	1,642	19.9	459	5.6	347	4.2	988	12.0

Insofar as pedestrian accidents are concerned, it will be seen that children under fifteen years of age constitute almost fifty per cent. of the victims. This suggests again the need for continued safety education in the homes and schools and should also serve as a very effective warning to motorists to exercise added care whenever driving in localities where children are walking or at play. Safety education will never entirely overcome the natural carefree impulsiveness of children, and a very great responsibility rests upon the shoulders of motorists.

As it is frequently difficult to classify the type of victims under the type of accident, the following table has been prepared to show the correct distribution. It can be seen that passengers were the greatest sufferers in non-fatal-personal-injury accidents. In a previous table, pedestrians were shown to comprise almost half of the victims of fatal accidents.

CLASSIFICATION OF VICTIMS OF NON-FATAL ACCIDENTS

	Number Injured	Per cent. of Total
Drivers	1,546	18.8
Passengers	3,041	36.9
Pedestrians	2,737	33.3
Others—(persons in horse-drawn vehicles, etc.)	113	1.4
Bicyclists	572	6.9
Motorcycle drivers	175	2.1
Motorcycle passengers	47	.6
Total	8,231	100.0

TABLE No. 6—NATURE OF INJURIES SUFFERED IN FATAL AND NON-FATAL ACCIDENTS

	Fatal		Injured	
	No.	Per cent	No.	Per cent.
Fractured skull	238	47.4	178	2.16
Fractured spine	24	4.8	9	.11
Other fractures	51	10.2	1,233	14.98
Concussion of brain	14	2.8	152	1.85
Severe general shock with bruises and cuts	55	10.9	2,339	28.42
Slight shock and shake-up	....	....	2,264	27.51
Internal injuries	83	16.5	155	1.88
Other injuries (sprains, dislocations, wrenches, etc.)	2	.4	454	5.52
Cuts by glass (only)	1	.2	1,383	16.80
Drowned	12	2.4	....	....
Burned	....	....	2	.02
Asphyxiated	2	.4	....	....
Not stated	20	4.0	62	.75
Total	502	100.0	8,231	100.00

The immensity of the costs in wages and in medical expense resulting from motor accidents is indicated by the above figures. Because of the indeterminable factors, no attempt is made here to estimate the loss to the dependents, the victims, and to society generally, but that the loss is of tremendous seriousness, is obvious, and, since in virtually every instance these deaths and injuries were the result of the improper actions of someone, the need for greater care on the part of every motorist and every pedestrian should be apparent.

About 45 per cent. of the non-fatal injuries may be regarded as of a serious nature, some victims being permanently disabled, others rendered temporarily unfit for their ordinary activities.

Possibly due to the growing use of shatter-proof glass, the share of the non-fatal injuries classified as "cuts by glass only" was slightly less than was recorded during 1931.

TABLE No. 7—SEX OF DRIVERS

Sex	No. of Drivers in Accidents	Per cent. of Total	Fatal		Personal Injury		Property Damage Only	
			No.	Per cent.	No.	Per cent.	No.	Per cent.
Male	12,184	93.3	495	94.1	7,536	92.8	4,153	94.1
Female	876	6.7	31	5.9	586	7.2	259	5.9
Total	13,060	100.0	526	100.0	8,122	100.0	4,412	100.0

No figures have been compiled to show the relative mileage of the men and women drivers, to what extent the proneness of the male driver to go abroad in weather which keeps the woman at home may affect the results, and whether the woman's driving takes her out during the hours of greatest traffic congestion. Since these factors cannot be determined, except in isolated cases, it is not possible to make a basic comparison of the driving experience of the two sexes. The above table merely shows the number of operators of each sex involved in reported accidents during the year.

One of every 25 male drivers implicated in reportable accidents was involved in a fatal accident; for woman drivers the ratio was 1 in 33.

Female drivers comprised 6.6 per cent. of the drivers involved in accidents on the urban streets, and 6.8 per cent. of the drivers in rural mishaps.

TABLE No. 8—AGES OF DRIVERS

Ages	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Under 18 years	224	1.7	7	1.3	162	2.0	55	1.2
18 to 24 years	2,428	18.6	122	23.2	1,638	20.2	668	15.1
25 to 40 years	4,495	34.4	207	39.4	2,898	35.7	1,390	31.5
41 to 54 years	2,263	17.3	91	17.3	1,512	18.6	660	15.0
55 to 64 years	559	4.3	33	6.3	363	4.5	163	3.7
65 years and over	170	1.3	11	2.1	108	1.3	51	1.1
Not stated	2,921	22.4	55	10.4	1,441	17.7	1,425	32.3
Total	13,060	100.0	526	100.0	8,122	100.0	4,412	100.0

More than 44 per cent. (44.3%) of the drivers, of stated age, in accidents were between [illegible] and 40 years old.

From the standpoint of fatal accidents those drivers in the age class "65 years and over" had the worst record—6.5 per cent. of the operators in this group involved in accidents were implicated in a fatal accident; of the drivers in the age group "55 to 64 years" 5.9 per cent. were involved in a fatal accident. In the age group "18 to 24" years there was 1 driver in a fatal accident for every 20 in all accidents.

Good judgment and an alert mind are essential qualities of the good driver. The young driver should place good judgment ahead of skill. Older drivers, who generally are slower to react in an emergency, should compensate for this driving deficienty by driving more slowly.

TABLE No. 9—LENGTH OF EXPERIENCE OF DRIVERS INVOLVED

Type	Drivers		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Less than three months..	157	1.2	5	.9	115	1.4	37	.8
Three to six months.....	92	.7	3	.6	68	.8	21	.5
Six to twelve months....	59	.5	3	.6	45	.6	11	.3
One to four years.....	2,196	16.8	100	19.0	1,473	18.1	623	14.1
Five years and over.....	7,235	55.4	284	54.0	4,737	58.3	2,214	50.2
Not stated.....	3,321	25.4	131	24.9	1,684	20.8	1,506	34.1
Total.....	13,060	100.0	526	100.0	8,122	100.0	4,412	100.0

Almost 97 per cent. (96.9%) of the operators involved during the year stated a driving experience of one year or more, and of these 74.3 per cent. claimed to have had five years or more experience.

While no data are available to show the number of operators licensed in the various experience groups, the number of experienced drivers involved is unnecessarily high. It is evident that too many drivers, who are thoroughly familiar with the controlling mechanism of their vehicles, fall short of being good drivers because they fail to realize the need for safe practices while behind the wheel.

There were 621 drivers in accidents during 1932 who had been involved in a previous accident within the period in which driver's records have been compiled (since September, 1930).

These 621 drivers, representing 4.8 per cent. of the operators involved during the year, were implicated in 850 mishaps or 9.3 per cent. of the total reported.

While "repeaters" are not in every instance responsible for the accidents in which they are involved,* there is evidence that as a group they are worse† than other drivers and an effort is being made to gradually "weed out" this small group of drivers who are involved in a large share of the accidents.

*A study of 2,079 accidents in which "repeaters" were implicated showed that:
46.0 per cent. were mainly the repeater's responsibility;
27.5 per cent. were mainly the other driver's responsibility;
19.6 per cent. were mainly the other person's responsibility;
6.9 per cent. the blame was not placed.

†An analysis of a number of records taken from the files at random and covering a 28-months period showed that: Of the drivers involved in "non-fatal" or "property damage only" accidents, 16.7 per cent. had been convicted of an offence against the Highway Traffic Act prior to the accident. For drivers in "fatal accidents" this percentage was 19.2; and for "repeaters" the percentage was 22.5.

TABLE No. 10—CONDITION OF DRIVERS INVOLVED

	Total		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Intoxicated.....	151	1.16	10	1.9	91	1.1	50	1.2
Physical defect.....	21	.16	1	.2	10	.1	10	.2
Extreme fatigue.....	106	.81	5	.9	61	.8	40	.9
Normal.....	12,782	97.87	510	97.0	7,960	98.0	4,312	97.7
Total.....	13,060	100.00	526	100.00	8,122	100.0	4,412	100.0

From the above table it can be seen that but a small part of the drivers in accidents were involved because of their inability to operate a motor vehicle owing to their physical condition; in the great majority of instances their implication was due to an indifference to the need of safe driving practices. In this evidence of irresponsibility, inattention and poor judgment may be found the cause of most motor vehicle accidents.

Of the various states of mind which are conducive to accidents, inattention is probably the most important. By inattention is meant lack of concentration on the business of driving the vehicle, or of walking on the highway. The attention of the driver or pedestrian is too apt to

be diverted to other things, such as objects of interest off the road, conversation with companions, or the train of thought in which the person at the moment happens to be the most interested. Driving and walking tend to become purely involuntary occupations, the mind being left free to wander. Fatigue and undue exhilaration, however occasioned, result in inattention to traffic conditions by preventing one from keeping his mind sharply focused on the many traffic situations which must be met, judged and acted upon in the safe driving of a motor vehicle. Any abnormal state of mind interferes with the normal time reaction in meeting conditions which call for a quick response.

TABLE No. 11—RESIDENCE OF DRIVERS INVOLVED IN ACCIDENTS

Residence of Driver	In Total		Number of Drivers				Property Damage Only	
			In Fatal		Personal Injury			
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Ontario	12,303	94.20	479	91.1	7,693	94.70	4,131	93.61
Quebec	77	.59	5	.9	37	.45	35	.79
Other Provinces	17	.13	...	....	10	.13	7	.17
Michigan	321	2.45	18	3.4	202	2.49	101	2.29
Ohio	44	.34	7	1.3	24	.30	13	.30
New York	190	1.46	13	2.5	97	1.20	80	1.81
Illinois	33	.25	...	....	26	.32	7	.17
Massachusetts	5	.04	...	....	1	.01	4	.09
Pennsylvania	18	.14	...	....	10	.13	8	.18
Other States	52	.40	4	.8	22	.27	26	.59
Total	13,060	100.00	526	100.0	8,122	100.00	4,412	100.00

From the above table it can be seen that during 1932, 94.20 per cent. of the drivers in reported accidents were residents of Ontario; .59 per cent. gave their residence as Quebec; .13 were from other Canadian provinces; and the remaining 5.08 per cent. were residents of the United States. Non-residents, who comprised 5.8 per cent. of the drivers in all accidents, made up 8.9 per cent. of the drivers in Fatal accidents.

There can be no doubt that the highway hazards are considerably enhanced for [illegible] driver because of his lack of familiarity with the roads over which he travels, and [illegible] with the requirements of Ontario Traffic Law. In addition, he may fail to recognize, [illegible] interpret, warning signs or signals which differ from those in his home province or state.

The difference between the percentage of visiting drivers in All accidents and in Fatal ac[illegible] is probably due to the tendency of those drivers from jurisdictions where higher speeds are [illegible] to drive at rates considered excessive in Ontario. When an accident occurs under these conditions the results are usually much more severe than when a crash occurs at lower speed.

TABLE No. 12—ACTION OF DRIVERS INVOLVED

Action	Total		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent
Speed too fast for road or traffic conditions	1,074	28.6	73	41.2	629	29.5	372	25.7
On wrong side of road	979	26.1	38	21.5	483	22.7	458	31.7
Did not have right of way	582	15.5	7	3.9	321	15.1	254	17.6
Cutting in	150	4.0	5	2.8	82	3.9	63	4.3
Passing standing street car	27	.7	2	1.1	22	1.0	3	.2
Passing on curve or hill	39	1.0	1	.6	21	1.0	17	1.2
Passing on wrong side	38	1.0	...	....	22	1.0	16	1.1
Failed to signal	104	2.8	1	.6	51	2.4	52	3.6
Car ran away—no driver	26	.7	3	1.7	13	.6	10	.7
Drove off roadway	733	19.6	47	26.6	485	22.8	201	13.9
Total	3,752	100.0	177	100.0	2,129	100.0	1,446	100.0

While the above table does not actually divulge the causes of motor vehicle accidents, we have the actions of all implicated drivers [illegible] classified, it gives some indication of the [illegible]

practices which are the cause of practically every accident. Evidence of thoughtlessness, inattention, poor judgment, ignorance and discourtesy, which are the fundamental causes, may be found in the acts of driving at speeds which are too fast for road and traffic conditions, in driving on the wrong side of the road, in passing on curves or hills, failing to signal, and the various other breaches of the common-sense rules of the road.

Accidents happen because drivers (and other highway users) fail to realize that if an unsafe act or practice is repeated a sufficient number of times, regardless of the experience of the driver or the condition of the road or weather or of any other circumstance, eventually and inevitably an accident will result. By no means can it be said that the drivers in accidents were the only ones guilty of unsafe acts—they were merely the victims of the law of average!

TABLE No. 13—TYPES OF VEHICLES INVOLVED

Type	All Vehicles		In Fatal		In Personal Injury		In Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Passenger car	10,907	80.20	417	75.0	6,752	80.8	3,738	79.77
Commercial vehicle	1,991	14.64	107	19.2	1,106	13.2	778	16.60
Taxicab	218	1.60	3	.5	136	1.6	79	1.69
Bus	104	.77	3	.5	53	.6	48	1.02
Motorcycle	282	2.07	12	2.2	257	3.1	13	.28
Trailer	42	.31	2	.4	20	.3	20	.43
All others	6	.04	...	....	5	.1	1	.02
Not stated	50	.37	12	2.2	29	.3	9	.19
Total	13,600	100.00	556	100.0	8,358	100.0	4,686	100.0

The total of 13,600 motor vehicles involved in reported accidents during 1932 includes all such vehicles which in any way contributed to the accident. That is to say, parked cars, cars without drivers, hit-and-run vehicles and also some vehicles which were not in actual collision but which, because of the manner in which they were operated or because of faulty equipment such as glaring headlights, contributed in any way to the causation of the accident.

For the most part the results shown are much as one would anticipate when the number of vehicles, and the periods and conditions of operation of the various types are considered. One point requiring further study, however, is the high percentage of commercial vehicles in fatal accidents when compared to the percentage involved in all accidents. The greater weight of these vehicles would appear to offer a ready explanation until the figures for buses are considered. These vehicles, too, are comparatively large and heavy but the percentages involved in fatal accidents is much smaller than that in all accidents. This would seem to discount any theory as to weight being the controlling factor and as yet no definite conclusions have been reached which offer a satisfactory explanation.

TABLE No. 14—CONDITION OF VEHICLES INVOLVED

Type	All Vehicles		In Fatal		In Personal Injury		In Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
In apparent good condition	12,608	92.7	484	87.1	7,765	92.9	4,359	93.0
Brakes defective	198	1.5	14	2.5	137	1.6	47	1.0
Steering mechanism defective	58	.4	2	.4	39	.5	17	.4
Glaring headlights	77	.6	8	1.4	42	.5	27	.6
One or both headlights out	63	.5	4	.7	41	.5	18	.4
Tail-light out or obscured	56	.4	3	.5	31	.4	22	.5
No chain (wet or icy road)	126	.9	7	1.3	66	.8	53	1.1
Other defects in equipment	86	.6	6	1.1	46	.5	34	.7
Puncture or blow-out	114	.8	10	1.8	71	.9	33	.7
Not stated	214	1.6	18	3.2	120	1.4	76	1.6
Total	13,600	100.0	556	100.0	8,358	100.0	4,686	100.0

More than 94 per cent. of the vehicles in All accidents and 90 per cent. of those in Fatal accidents were stated to have been "in apparent good condition." Defective brakes, puncture or blow-outs, and glaring headlights were the mechanical deficiencies reported most frequently as contributing to fatal accidents.

Since vehicles involved in accidents are, in many instances, so damaged as to be unfit for a test after the accident, it is not possible to determine accurately the extent mechanical defects contribute to accidents. In collisions involving pedestrians and bicyclists the number of defective vehicles was shown to be greater than in collisions between vehicles. Of vehicles involved in accidents on the rural roads, 1.7 per cent. were stated to have been implicated as the result of puncture or blow out, and in the "collision with fixed object" type of accident on these roads, 3.2 per cent. of the vehicles involved were so classified and in the non-collision type, 9.7 per cent. of the vehicles were involved because of tire defects.

TABLE No. 15—DIRECTION OF TRAVEL

Direction	All Vehicles		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Going straight	10,462	76.9	483	86.9	6,580	78.7	3,399	72.5
Turning right	333	2.4	8	1.4	219	2.6	106	2.3
Turning left	1,166	8.6	12	2.2	732	8.8	422	9.0
Backing	171	1.3	8	1.4	109	1.3	54	1.1
Parked or standing still	631	4.6	18	3.2	269	3.2	344	7.3
Slowing down or stopping	189	1.4	2	.4	108	1.3	79	1.7
Skidding	648	4.8	25	4.5	341	4.1	282	6.0
Total	13,600	100.0	556	100.0	8,358	100.0	4,686	100.0

About 77 per cent. of the vehicles in All accidents and about 87 per cent. of those in Fatal accidents were travelling straight at the time of the accident. Three times as many were involved while turning left as were when turning right.

More than 61 per cent. of the injuries (fatal and non-fatal) were suffered in accidents which directly involved only one motor vehicle; which either collided with a pedestrian, bicyclist, horse-drawn or other vehicle, railroad train, street car, fixed object or ran off the roadway. The remaining 38.5 per cent. were suffered in accidents involving two or more motor vehicles. About 68 per cent. of the injuries which resulted from collision between vehicles, involved vehicles which were travelling straight; 15.7 per cent. from collisions in which one vehicle was travelling straight and the others turning left; and 9.3 per cent. from collision between straight-travelling and parked motor vehicles.

TABLE No. 16—ROAD CONDITIONS PREVAILING

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
In good condition	9,094	99.1	457	99.2	6,132	99.21	2,505	99.2
Defect in roadway	32	.4	2	.4	19	.30	11	.4
Road under repair	35	.4	2	.4	27	.43	6	.2
Obstruction not lighted	10	.1	.....	.....	4	.06	6	.2
Total	9,171	100.0	461	100.0	6,182	100.00	2,528	100.0

Further proof that the responsibility for accidents rests almost entirely upon the human factor is found in the above table which shows that in 99.1 per cent. of the accidents the road conditions were "good."

TABLE No. 17—ROAD SURFACE PREVAILING

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Dry surface	5,969	65.1	317	68.8	4,185	67.7	1,467	58.0
Wet surface	1,781	19.4	86	18.7	1,218	19.7	477	18.9
Muddy surface	30	.3	3	.6	19	.3	8	.3
Snowy surface	504	5.5	18	3.9	302	4.9	184	7.3
Icy surface	836	9.1	31	6.7	425	6.9	380	15.0
Not stated	51	.6	6	1.3	33	.5	12	.5
Total	9,171	100.0	461	100.0	6,182	100.0	2,528	100.0

That motorists can be careful when road conditions demand, is indicated by the above table which shows that while about 68 per cent. of the accidents which resulted in personal injury took place on dry surfaces, only 58 per cent. of the mishaps involving damage to property occurred under these surface conditions.

Weather and road surface conditions add to the hazards of safe motoring but good drivers have little difficulty in conforming their driving practices to these conditions. Inability or failure to make allowance for these obvious hazards must be considered an indication of inexperience or plain carelessness.

TABLE No. 18—WEATHER CONDITIONS PREVAILING

	All Accidents		Fatal		Personal Injury		Property Damage, Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Clear	6,386	69.6	340	73.7	4,331	70.1	1,715	67.8
Cloudy	957	10.4	45	9.8	668	10.8	244	9.7
Fog	137	1.5	9	2.0	74	1.2	54	2.1
Rain	1,141	12.5	49	10.6	781	12.6	311	12.3
Snow or Sleet	475	5.2	14	3.0	274	4.4	187	7.4
Not stated	75	.8	4	.9	54	.9	17	.7
Total	9,171	100.0	461	100.0	6,182	100.0	2,528	100.0

The figures above substantiate the frequent observation that when weather conditions become apparently dangerous, drivers tend to offset such conditions by more careful operation. It will be noted that the share of "property damage only" accidents under unfavourable weather conditions was greater than in fatal and personal injury accidents. The most obvious explanation is that drivers operate at a lower rate of speed when weather conditions demand it; accidents happen but tend to be less severe.

TABLE No. 19—ACTION OF PEDESTRIANS

	All Accidents		Accidents Involving Pedestrians			
			Fatal		Non-fatal	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Crossing at street intersections:						
(a) with signal	63	2.2	2	.9	61	2.3
(b) against signal	105	3.7	4	1.8	101	3.9
(c) no signal	417	14.8	25	11.1	392	15.1
(d) diagonally	39	1.4	5	2.2	34	1.3
Crossing between intersections	590	17.3	31	13.7	459	17.7
Waiting for or getting on or off street car	51	1.8	3	1.3	48	1.8
Standing in safety zone	3	.1	....	.....	3	.1
Getting on or off other vehicle	25	.9	2	.9	23	.9
Children playing in street	853	30.2	45	19.9	808	31.1
At work in roadway	84	3.0	10	4.4	74	2.9
Riding or hitching on vehicle	55	2.0	10	4.4	45	1.7
Walking on highway	170	6.0	46	20.4	124	4.8
Coming from behind parked vehicle or object	295	10.4	16	7.1	279	10.7
Crossing highway	104	3.7	20	8.8	84	3.2
On sidewalk	72	2.5	7	3.1	65	2.1
Total	2,826	100.0	226	100.0	2,600	100.0

From the standpoint of deaths and serious injuries, the pedestrian was the greatest sufferer from motor vehicle accidents and from the above table it can be seen that a large share of the responsibility for these mishaps rested upon the pedestrians involved. Consider the fact that about 70 per cent. of the fatal pedestrian accidents involved persons who crossed the street against the traffic signal, or who crossed diagonally or between intersections, or were playing on the street, riding or hitching on vehicles, coming from behind parked vehicles or objects, or walking on rural highways, and it can be seen that too many pedestrians fail to appreciate the need for care while on the streets and highways.

TABLE No. 20—NUMBER OF ACCIDENTS, BY LOCATION

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Cities	5,009	54.6	135	29.3	3,670	59.4	1,204	47.6
Towns	453	4.9	43	9.3	286	4.6	124	4.9
Villages	109	1.2	15	3.3	68	1.1	26	1.0
King's Highways	2,447	26.7	150	32.5	1,430	23.1	867	34.3
County roads	748	8.2	86	18.7	437	7.1	225	8.9
Township roads	405	4.4	32	6.9	291	4.7	82	3.3
Totals	9,171	100.0	461	100.0	6,182	100.0	2,528	100.0

NUMBER OF ACCIDENTS BY URBAN AND RURAL ROADS

	All Accidents		Fatal		Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Urban*	5,571	60.7	193	41.9	4,024	65.1	1,354	53.5
Rural†	3,600	39.3	268	58.1	2,158	34.9	1,174	46.5
Totals	9,171	100.0	461	100.0	6,182	100.0	2,528	100.0

*In incorporated cities, towns and villages.
†On King's Highways, county roads and township roads.

The above tables plainly indicate the generally greater seriousness, from the standpoint of fatal injuries, of the accidents on the rural roads. Fatal accidents on the King's highways comprised 32.5 per cent. of all fatal accidents though only 26.7 per cent. of all reported accidents occurred on these roads.

The ratio of fatal accidents to all accidents which happened in the towns and in the incorporated villages is noticeably high. This indicates a failure of some police forces to report accidents of less serious consequence rather than a greater severity of mishaps in these communities.

A combined summary of city accidents showed more collisions with pedestrians than with other motor vehicles which would explain the large share of the non-fatal personal injury accidents which occurred on the urban streets. While, obviously, collisions between vehicles are, on both the urban and rural roads, the most common type of accident, the damage from urban accidents of this type is in a great many cases, under the $50.00 property damage limit and so are not included in these statistics. On the other hand, collisions with pedestrians in every instance result in some injury or shock and are therefore required to be reported. For this reason the cities, in total, report more pedestrian mishaps than any other one type.

The results of an analysis of the circumstances of urban accidents lead to conclusions often quite different from those obtained from an analysis of rural accidents. This variance, which was also noted in a study of fatal as compared with all accidents, has been previously shown in Table No. 1.

The amount of property damage resulting from accidents in the various localities is shown below:

	Total Amount of Property Damage	Amount Per Accident
Cities	$309,117	$ 61.70
Towns	50,433	111.31
Villages	11,552	105.98
King's highways	454,130	185.60
County roads	128,027	171.17
Township roads	41,251	101.85
Total	$994,510	$108.44

The high rate of loss from King's Highway accidents, and from those on county roads (which include main roads in north Ontario), is noticeable. Many accidents which occur on the suburban streets outside the larger cities are classified under "township roads" which would explain the less severe results indicated in that division.

TABLE No. 21—NUMBER OF ACCIDENTS, DEATHS AND INJURIES, BY COUNTIES

County or District	Accidents Reported	Fatalities	Injured
Algoma	42	5	34
Brant	119	7	123
Bruce	37	11	47
Carleton	399	21	260
Cochrane	17	2	13
Dundas	31	4	26
Dufferin	19	3	17
Durham	79	11	84
Elgin	109	3	101
Essex	448	29	420
Frontenac	77	5	73
Glengarry	20	3	13
Grenville	51	7	56
Grey	72	5	66
Haldimand	36	5	37
Haliburton	1	1	
Halton	146	5	139
Hastings	169	15	157
Huron	46	6	39
Kenora	14	2	8
Kent	241	22	251
Lambton	71	6	65
Lanark	29	4	30
Leeds	78	7	71
Lennox and Addington	50	2	45
Lincoln	207	12	199
Manitoulin	4	...	4
Middlesex	534	22	548
Muskoka	42	...	37
Nipissing	58	4	61
Norfolk	77	8	69
Northumberland	85	3	82
Ontario	122	5	96
Oxford	157	14	151
Parry Sound	15	1	16
Peel	199	11	190
Perth	96	3	89
Peterborough	74	8	71
Prescott	18	1	16
Prince Edward	28	1	26
Rainy River	22	3	21
Renfrew	23	6	21
Russell	23	1	23
Simcoe	151	13	137
Stormont	42	4	50
Sudbury	78	4	76
Thunder Bay	104	8	109
Timiskaming	28	1	32
Victoria	22	1	18
Waterloo	175	15	155
Welland	244	19	213
Wellington	155	9	156
Wentworth	898	28	842
York	3,089	106	2,997
Totals	9,171	502	8,231

TABLE No. 22—ACCIDENTS BY ROAD LOCATIONS

	Total		Fatal		Number of Accidents			
					Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Street intersection	3,017	32.89	72	15.6	2,105	34.1	840	33.2
Between street intersections	2,237	24.39	96	20.8	1,746	28.2	395	15.6
Rural intersection	350	3.82	23	5.0	212	3.4	115	4.5
Straight road	2,139	23.32	159	34.5	1,291	20.9	689	27.3
Private driveway	256	2.79	18	3.9	152	2.5	86	3.4
Curve	527	5.75	32	6.9	319	5.2	176	7.0
Hill	439	4.79	23	5.0	251	4.1	165	6.5
Railroad crossing (a) Man on duty or gates	7	.08	3	.7	...	....	4	.2
Railroad crossing (b) Automatic signal	27	.30	11	2.4	8	.1	8	.3
Railroad crossing (c) Unguarded	90	.98	21	4.5	47	.7	22	.9
Bridge	82	.89	3	.7	51	.8	28	1.1
On ferry or dock	...	....	...	....	...	....	...	....
Totals	9,171	100.00	461	100.0	6,182	100.0	2,528	100.0

The majority of the accidents reported occurred on the urban streets, which fact explains the large number classified under "street intersection" and "between street intersections." As has been stated before, the "collision with pedestrian" type of accident was the most common single type which took place on these streets; 42.4 per cent. of the urban total being so classified. About 57 per cent. of the urban accidents of this type occurred between intersections and 39.2 per cent. *at* street intersections. Of the "collision with other motor vehicle" type, which comprised 34.29 per cent. of the urban accidents reported, over 69 per cent. happened at street intersections. Thus, while pedestrian accidents were numerically the greatest and most of them occurred between street intersections, there were a sufficient number which happened at intersections and combined with vehicle collision accidents to make intersections the most dangerous point. The fatal, urban, pedestrian accidents were twice as frequent between street intersections as *at* street corners.

The greater severity of accidents on rural roads is again indicated by the table above. It can be seen that while less than a quarter of the reported accidents happened on the rural straight road more than one-third of the fatal accidents occurred there.

Accidents at railroad crossings comprised 1.36 per cent. of all accidents, and 7.6 per cent. of the fatal accidents. The severity of collisions with railroad trains is further shown by the fact that one death occurred for every 1.5 accidents reported on the rural roads; and one death for every 5.2 urban accidents of this type.

TABLE No. 23—NUMBER OF ACCIDENTS, DEATHS AND INJURIES ON KING'S HIGHWAYS, BY ROUTE NUMBER

Number of King's Highway	Accidents	Fatalities	Injured
Queen Street	16	....	20
King's Highway No. 2	950	58	925
" " No. 3	228	11	202
" " No. 3A	24	2	17
" " No. 4	48	7	55
" " No. 4A	2	1	....
" " No. 5	162	12	172
" " No. 6	76	3	72
" " No. 7	110	6	113
" " Nos. 7 and 8	28	1	20
" " No. 8	189	14	204
" " No. 9	15	2	11
" " No. 10	41	6	34
" " No. 11	226	12	243
" " No. 12	21	2	20
" " No. 14	21	....	17
" " No. 15	24	1	27
" " No. 16	18	3	13
" " No. 17	54	4	55
" " No. 18	13	2	14
" " No. 19	10	2	10
" " No. 20	12	3	14
" " No. 21	5	....	6
" " No. 22	7	1	5
" " No. 23	9	....	7
" " No. 24	20	4	[illegible]
" " No. 25	6	....	[illegible]
" " No. 26	23	2	[illegible]
" " No. 27	7	....	[illegible]
" " No. 28	29	5	[illegible]
" " No. 29	11	2	[illegible]
" " No. 30	2	....	[illegible]
" " No. 31	8	1	[illegible]
" " No. 32	1	....	[illegible]
" " No. 33	7	5	[illegible]
" " No. 34	3	....	[illegible]
" " No. 8A	11	1	[illegible]
" " No. 36	1	....	....
" " No. 37	9	....	9
Totals	2,447	174	2,430

TABLE No. 24—NUMBER OF ACCIDENTS, DEATHS AND INJURIES, BY CITIES

Cities	Accidents Reported	Fatalities	Injured
Belleville	43	2	34
Brantford	66	3	60
Chatham	61	1	53
East Windsor	25	...	26
Fort William	33	1	27
Galt	36	1	24
Guelph	83	....	59
Hamilton	696	13	575
Kingston	45	3	31
Kitchener	51	5	46
London	376	4	324
Niagara Falls	74	2	64
North Bay	11	2	7
Oshawa	48	....	41
Ottawa	342	11	219
Owen Sound	28	1	25
Peterborough	42	4	27
Port Arthur	22	....	20
St. Catharines	81	1	63
St. Thomas	20	1	15
Sarnia	40	1	32
Sault Ste. Marie	10	2	13
Stratford	48	2	40
Sudbury	36	....	34
Toronto	2,434	68	2,107
Welland	19	....	12
Windsor	206	9	203
Woodstock	33	1	28
Totals	5,009	138	4,209

TABLE No. 25—ALL ACCIDENTS, FATALLY, PERSONS INJURED AND AMOUNT OF PROPERTY DAMAGE BY MONTHS

Month	Accidents		Fatality		Persons Injured		Property Damage	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	Amount	Per cent
January	681	7.4	34	6.8	591	7.2	$78,406.00	7.9
February	509	5.6	27	5.4	387	4.7	64,957 00	6.5
March	513	5.6	29	5.8	383	4.6	62,831.00	6.3
April	555	6.1	28	5.6	463	5.6	53,242.00	5.4
May	671	7.3	37	7.4	616	7.5	67,534.00	6.8
June	753	8.2	36	7.2	734	8.9	81,101.00	8.1
July	908	9.9	51	10.2	935	11.4	109,842.00	11.0
August	974	10.6	55	11.0	984	12.0	116,097.00	11.7
September	954	10.4	48	9.5	927	11.3	100,153.00	10.1
October	963	10.5	54	10.7	855	10.4	97,977 00	9.9
November	790	8.6	56	11.1	628	7.6	81,127.00	8.1
December	900	9.8	47	9.3	728	8.8	81,243.00	8.2
Total	9,171	100.0	502	100.0	8,231	100.0	994,510.00	100.0

A peculiar feature disclosed by this table is the fact that in every one of the last six months of the year, the total number of accidents exceeded the monthly average, while each of the first six months was below the average. August was the peak month insofar as the number of accidents

was concerned but November showed the peak in fatalities, exceeding the total of 55 reached during August by one.

The monthly trend from February to August was consistently upward as to number of accidents, number of fatalities and number of persons injured. The number which occurred during August, September and October were almost equal with a decrease coming in November in all items except fatalities. This was reversed in December when the number of accidents and of persons injured increased sharply, and the number of fatalities dropped.

Graph No. 3 has been prepared to show the monthly trend of accidents on the urban and rural roads during 1932.

In the order named, urban accidents were most frequent during December, October, and September; fatal accidents; December, October, and August; personal injury accidents, October, December, and August; property damage accidents: December, November, and February. On the rural roads, these figures were: All accidents most frequent during August, July, and September; fatal accidents: July, September, and August; personal injury; August, July, September; property damage only accidents: July, August, September.

These seasonal trends indicate the greater seriousness of rural accidents during the months of heavy traffic and of urban accidents when light, road and weather conditions make driving and walking more hazardous. The greater proportion of property damage only accidents during the winter months is probably due to the generally lower speeds prevailing during that season

TABLE No. 26—DAY OF OCCURRENCE

	Total		Fatal		Number of Accidents			
					Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Sunday	1,185	12.9	70	15.2	755	12.2	359	14.2
Monday	1,171	12.8	62	13.5	780	12.6	329	13.0
Tuesday	1,172	12.8	53	11.4	827	13.4	292	11.5
Wednesday	1,223	13.3	59	12.8	830	13.4	334	13.2
Thursday	1,198	13.1	60	13.0	808	13.1	330	13.1
Friday*	1,385	15.1	62	13.5	944	15.3	379	15.0
Saturday*	1,837	20.0	95	20.6	1,238	20.0	504	19.9
Not stated	...	.....	...	.....	...	.....	...	...
Totals	9,171	100.0	461	100.0	6,182	100.0	2,528	100.0

*During 1932, there was one more Friday (53) and one more Saturday than other days of the year.

There can be no doubt that the week-ends are the most dangerous periods on Ontario streets and highways, and that the hazard is greater on Saturday than on any other day of the week. Sunday ranked second in the number of fatal accidents but was fifth in total number of accidents. The high percentage of Sunday fatalities is largely accounted for by pedestrian fatalities on rural roads during the Summer. The roads are much used by pedestrians at that period and when an accident occurs the result is only too often a fatality.

If the total number of accidents only is considered, it would appear that Monday and Tuesday are the safest days of the week. However, if the fatalities are studied, Tuesday will retain its premier place, but Wednesday replaces Monday as the second most accident-free day.

There was an average of one fatal accident (in which one or more persons were killed) every

17.8 hours on Sunday;
20.1 " " Monday;
23.5 " " Tuesday;
21.1 " " Wednesday;
20.8 " " Thursday;
20.5 " " Friday; and every
13.4 " " Saturday.

The yearly average was 1 fatal accident every 19 hours.

TABLE No. 27—HOUR OF OCCURRENCE

	Total		Fatal		Number of Accidents			
					Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
12– 1 A.M.	253	2.8	12	2.6	159	2.6	82	3.2
1– 2 "	201	2.2	8	1.7	118	1.9	75	3.0
2– 3 "	177	1.9	10	2.2	104	1.7	63	2.5
3– 4 "	74	.8	3	.6	41	.7	30	1.2
4– 5 "	76	.8	7	1.5	35	.6	34	1.3
5– 6 "	62	.7	7	1.5	26	.4	29	1.1
6– 7 "	88	.9	7	1.5	57	.9	24	.9
7– 8 "	124	1.3	6	1.3	80	1.3	38	1.5
8– 9 "	280	3.0	22	4.8	179	2.9	79	3.1
9–10 "	262	2.9	9	2.0	142	2.3	111	4.4
10–11 "	350	3.8	14	3.0	232	3.7	104	4.1
11–12 "	401	4.4	11	2.4	280	4.5	110	4.4
12– 1 P.M.	455	5.0	22	4.8	335	5.4	98	3.9
1– 2 "	396	4.3	17	3.7	278	4.5	101	4.0
2– 3 "	460	5.0	16	3.5	313	5.1	131	5.2
3– 4 "	504	5.5	28	6.1	331	5.4	145	5.7
4– 5 "	670	7.3	21	4.6	485	7.8	164	6.5
5– 6 "	871	9.5	36	7.8	628	10.2	207	8.2
6– 7 "	767	8.4	57	12.4	541	8.7	169	6.7
7– 8 "	712	7.8	44	9.5	501	8.1	167	6.6
8– 9 "	627	6.8	42	9.1	438	7.1	147	5.8
9–10 "	493	5.4	23	5.0	331	5.4	139	5.5
10–11 "	401	4.4	19	4.1	256	4.1	126	5.0
11–12 "	437	4.8	20	4.3	274	4.4	143	5.7
Not stated	30	.3	...	....	18	.3	12	.5
Totals	9,171	100.0	461	100.0	6,182	100.0	2,528	100.0

More accidents happen between 5 and 6 P.M. than during any other hour of the day. During the period from 4 until 8 P.M. which includes the evening rush hours in large municipalities, approximately one-third of all accidents reported, occurred. The peak hours of fatal accidents seemingly came one hour later, the hour 6 to 7 P.M. being apparently the worst and considerably more than one-third of the total fatal accidents occurred during the four-hour period from 5 to 9 P.M.

Inasmuch as the corresponding morning rush period from 6 to 10 A.M. was relatively free from accidents, it would appear that fatigue of drivers and pedestrians, and, in the winter months, poor visibility due to early darkness, were among the major causes contributing to the evening accident peak.

TABLE No. 28—LIGHT CONDITION

	Total		Fatal		Number of Accidents			
					Personal Injury		Property Damage Only	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Daylight	5,210	56.8	235	51.0	3,591	58.1	1,384	54.8
Dusk	569	6.2	36	7.8	398	6.4	135	5.3
Dark	3,378	36.8	190	41.2	2,184	35.3	1,004	39.7
Not stated	14	.2	...	....	9	.2	5	.2
Totals	9,171	100.0	461	100.0	6,182	100.0	2,528	100.0

The fact that well over fifty per cent. of all accidents occurred during daylight should serve to once again prove that human actions and not conditions are the predominant factor in the causation of accidents.

It will be noted, however, that there is a tendency to greater severity in accidents happening during dusk or darkness; the percentage of Fatal accidents is higher under these conditions than the percentage of All accidents. This appears to be due to the fact that, when a collision does happen because of poor visibility, the impact, whether between motor vehicle and pedestrian, other motor vehicle, or some other object, is likely to occur at higher speed than if better visibility had disclosed the hazard sooner and offered an opportunity to reduce speed.

Graph No. 4 also suggests the reason for the higher fatal rate in accidents which are partly due to lower visibility. Darkness is seen to be a greater factor in the causation of rural accidents than of urban accidents. Collisions with bicycles, and with pedestrians are noticeably high during darkness. The study of collisions with railroad trains, on the other hand, is very high during daylight.

The remedy for the lessening of the occurrence of night accidents would appear to be adequate fixed illumination of highways, periodical inspection of lights and wiring on vehicles, and an appreciation by all drivers of the disturbing effect on the vision produced by glaring headlights.